
Report

Ecological Risk Assessment Support Sampling

Prepared for
Dow Chemical Company

Midland, MI

March 2005

CH2MHILL

Contents

Contents.....	i
Acronyms	ii
Ecological Risk Assessment Support Sampling.....	1
1.0 Introduction.....	1
1.1 Sampling Design.....	1
2.0 Summary of Field Activities	1
2.1 Soil Sampling	1
2.2 Sediment Sampling	2
3.0 Laboratory Analysis.....	3
4.0 Validation	3
5.0 Summary of Analytical Data	4
6.0 References.....	4

Tables

- 1 Soil TEQ Results
- 2 Sediment TEQ Results
- 3 Detected Constituents in Soil
- 4 Detected Constituents in Sediment

Figure

- 1-1 Dioxin TEQ Concentrations from ERA Support Soil and Sediment Sampling

Appendices

- A Sample Station Summary
- B Analytical Validation Summary

Attachment

- 1 Sampling and Analysis Plan for Ecological Risk Assessment Support Sampling

Acronyms

ENTRIX	Entrix Inc.
EPA	Environmental Protection Agency
ERA	Ecological Risk Assessment
Facility	Dow Midland facility
IDW	Investigative derived waste
LCS	Lab Control Sample
LCS/LCSD	Lab Control Sample/Lab Control Sample Duplicate
MDEQ	Michigan Department of Environmental Quality
MDL	Minimum Detection Limit
MOCA	Midland Offsite Corrective Action
MS/MSD	Matrix Spike/Matrix Spike Duplicates
MSU	Michigan State University
PARCCs	Precision, Accuracy, Representativeness, Completeness and Comparability
PCOIs	Potential constituents of interest
PPE	Personal Protective Equipment
QA/QC	Quality assurance/quality control
QAPP	Quality Assurance Project Plan
RDCC	Residential Direct Contact Criterion
RI	Remedial Investigation
RPD	Relative percent differences
RRF	Relative Response Factor
SAP	Sampling and Analysis Plan
SVOCs	Semi-volatile organic compounds
TEQ	Toxicity equivalency quotients
VOCs	Volatile organic compounds

Ecological Risk Assessment Support Sampling

1.0 Introduction

This report documents the field activities and presents the results of the environmental sampling conducted by CH2M HILL, Inc. (CH2M HILL) to support The Dow Chemical Company, Michigan Operations, Midland Offsite Corrective Action (MOCA), Ecological Risk Assessment (ERA). As discussed in the ERA Support Sampling and Analysis Plan (SAP; CH2M HILL, 2004), there were two objectives for this sample collection. The first objective was to provide Michigan State University (MSU) with data necessary to support the ERA. A second objective was to use the data for a preliminary evaluation of potential constituents of interest (PCOIs) along the Tittabawassee River. The SAP for ERA Support Sampling is included with this report as Attachment 1.

1.1 Sampling Design

MSU established six study areas for the purpose of conducting ecological investigations under the ERA. Five of these areas are located along the Tittabawassee River (one of which is upstream of Dow), and one is located upstream of the Facility along the Chippewa River. The upstream study areas provide reference sites outside of any influence from the Dow Midland Facility. Each study area includes a pair of study plots: a terrestrial plot located along the river bank, and an aquatic plot located within the river.

To represent the areas of ecological exposure, surface soil (0"-6") and surface sediment (0"-2") samples were identified for collection. Four samples of each media per plot were identified by MSU as the sufficient number. The planned sample locations were placed along the perimeter of each plot, approximately half-way between each corner. The target analytes for these samples include dioxins/furans and other potential contaminants of interest (PCOIs) in soil and sediment in the vicinity of the ERA study plots. Other PCOIs include USEPA Appendix IX constituents, constituents typically analyzed by the Michigan Department of Environmental Quality (MDEQ), and several additional constituents currently monitored as part of the Facility's groundwater monitoring program. A complete list of analytes can be found in the SAP (Attachment 1).

2.0 Summary of Field Activities

2.1 Soil Sampling

Soil sampling in support of the ERA was performed from June 1st through June 4th 2004. Sample locations at ERA Plots 1 (Gladwin Forest) and 2 (Chippewa Nature Center) were collected using a track mounted Geoprobe rig. Eight locations (4 at each pilot area) were sampled using direct push technology to depths where the water table was encountered.

Due to difficulty with the Geoprobe rig and accessing the ERA plots without disturbing the plots and surrounding areas, the decision was made to discontinue use of the rig and finish

sampling by hand auger. Therefore, only surface soil samples (depth of 0.5 ft.) were collected at remaining Plots 3 through 6 (Plot 3 – Smiths Crossing, Plot 4 – Tittabawassee Township Park, Plot 5 – Freeland Festival Park, and Plot 6 – Imerman Park).

As part of the SAP, location coordinates were to be collected from both the corners of the ERA Plots 1 through 6 and at each sampling station. However, the flags marking the corners of ERA Plot 2 were no longer present so the corresponding location coordinates for the Plot corners could not be collected. The station locations (Station IDs), location coordinates, Sample ID's, sample depth intervals, and associated analytical batches are summarized in Appendix A.

Quality Control Samples

Quality control samples were collected in accordance with the program Quality Assurance Project Plan (QAPP; CH2M HILL 2004), in addition to the forty-one field soil samples. The QC sample type, event frequency and SAP specified frequency for QC sample collection are summarized in Table A-2 of Appendix A.

Investigation Derived Waste

Sample equipment was decontaminated at each sample location and aqueous investigative derived waste (IDW) was disposed at each sampling location at the consent of the land-owner/steward, and in accordance to the *Handling and Disposal of Investigative-Derived Waste Field SOP* (CH2M HILL, 2004). Soil cores were processed at each sampling location and excess soil was placed back into the boring which it originated. Personal Protective Equipment (PPE) was containerized in trash bags and disposed of at the municipal landfill via office dumpster.

2.2 Sediment Sampling

Sediment sampling in support of the ERA was performed from June 28th through June 30th 2004. The six aquatic plots were located using a Trimble GeoXT GPS receiver. Trees that were adjacent to the upstream and downstream edges of the terrestrial plot were also marked with flagging tape to help the field team locate the appropriate aquatic plots. Upon arrival at each plot, the sampling team positioned the sampling boat just outside the plot at the midpoint between each corner. The GPS receiver contained pre-loaded location coordinates for each of the sampling locations which were used to guide the field crew to each sampling station. The field team then anchored the boat at each location and then recorded real-time location coordinates, both by logging the coordinates into the GPS receiver and also recording them in the field notebook.

Once positioned at each location, the top approximate 2 inches (0.2 feet) of sediment were collected using a ponar dredge. Due to the imprecise nature of the ponar dredge for the collection of surface sediment samples at specific depths, the depth interval measurement should be considered estimated by the data user. Due to the large amount of sand and gravel at most of the locations, it took multiple attempts to collect a sufficient amount of sample to fill the appropriate number of sample containers for analysis. The station locations (Station IDs), location coordinates, Sample ID's, sample depth intervals, and associated analytical batches are summarized in Appendix A.

Quality Control Samples

Twenty-four sediment field samples (not inclusive of QC samples) were collected during the ERA Support soil sampling. The summary of the QC sample type, event frequency and SAP specified frequency for QC sample collection is presented in Table A-4 of Appendix A.

Investigation Derived Waste

Tittabawassee River water was used to decontaminate the ponar dredge and sampling equipment used to homogenize the sediment (stainless steel bowl and spoon). The river water used was then discarded back into the river. Excess sediment was also placed back in the river at the location it was taken. Personal Protective Equipment (PPE) was containerized in trash bags and discarded at the municipal landfill via office dumpster.

3.0 Laboratory Analysis

All soil and groundwater samples were analyzed for volatile organic compounds (VOCs) by EPA Method 8260, semi-volatile organic compounds (SVOCs) by EPA Methods 8270 and 3510, total metals by EPA Method 6010B, Mercury by EPA Method 7471A, total Cyanide by EPA Method 9012, Pesticides by EPA Method 8081A, PCBs by EPA Method 8082, Organophosphorus Pesticides by EPA Method 8141, Chlorinated Phenoxy Acid Herbicides by EPA Method 8151A, and Dioxins and Furans by EPA Method 8290.

Sample analysis was conducted at two separate environmental laboratories. Analyses for dioxins/furans were performed at Alta Analytical Laboratory in El Dorado Hills, California. Analyses for all other PCOIs were conducted at Gulf Coast Analytical Laboratory in New Orleans, Louisiana. All analyses were performed in accordance with the Dow MOCA Quality Assurance Project Plan (CH2M HILL 2004).

4.0 Validation

All data collected under the ERA Support Sampling effort were validated to Level III per the MOCA QAPP. An overall evaluation of the data indicates that the sample handling, shipment, and analytical procedures have been adequately completed. The validation review demonstrated that the analytical systems were generally in control and the data results can be used for its intended purpose.

Conclusions of the data quality evaluation process include the following:

- The laboratory analyzed the samples according to the EPA methods stated in the work plan as demonstrated by the deliverable summaries and analytical run sequences.
- Concentrations of blank contaminants were applied according to EPA *National Functional Guidelines* in order to reflect sample values that may be attributed to field or laboratory contamination.
- Sample results for metals above the Minimum Detection Limit (MDL) but less than five times the MDL may be attributed to instrument noise and/or low level contamination. Therefore, results at these low concentration levels may be described as potential false positives.

- Sample results for target organic compounds above the MDL but less than the contract required quantitation limit should be considered as uncertain but indicative of the presence of that compound at an estimated concentration.
- Except for lower recoveries of 4-Bromofluorobenzene, the low number of surrogate spike recoveries, MS/MSD, and field duplicate results, out of acceptance limits, indicate that the sample matrix did not significantly interfere with the overall analytical process
- Twenty-four antimony results were rejected, "R", due low Matrix Spike/Matrix Spike Duplicates recoveries. The recoveries were less than 30 percent, ranging from 20-28 percent.

The project objectives for Precision, Accuracy, Representativeness, Completeness and Comparability (PARCCs) were met, and the data can be used as qualified by the data quality evaluation process. The full Validation Summary is provided in Appendix B.

5.0 Summary of Analytical Data

This report presents analytical data from the ERA Support Sampling effort in tabular form. Tables 1 and 2 present the dioxin/furan data as toxicity equivalency quotients (TEQs) by location, and individually for each media (Table 1 presents soil TEQs, Table 2 presents sediment TEQs). TEQ results for each location are shown on Figure 1-1. Samples collected during this study were analyzed for all 17 of the 2,3,7,8-substituted dioxin and furan congeners that are necessary to evaluate the TEQ. TEQs were calculated according to World Health Organization methodology (Van den Berg, et al., 1998), using toxicity equivalency factors for mammals. Laboratory non-detect results for individual congeners were factored into the TEQ calculation using a value of one-half the laboratory detection limit.

Analytical results for all other PCOIs are also presented in tabular form as summaries of analytical detections. Tables 3 and 4 list all detected PCOIs in soil and sediment, respectively, by location.

The complete file of all analytical data collected under the ERA Support Sampling effort are included on the compact disc transmitted with this report.

6.0 References

- CH2M HILL. 2004. *Dow MOCA Quality Assurance Project Plan*.
- CH2M HILL. 2004a. *ERA Support Sampling and Analysis Plan*.
- CH2M HILL. 2004b. *Handling and Disposal of Investigative-Derived Waste Field SOP*.
- CH2M HILL. 2004c. *Quality Assurance Project Plan*.
- U.S. Environmental Protection Agency (EPA). *National Functional Guidelines*.
- Van den Berg, M.; et al. 1998. Toxic equivalency factors (TEFs) for PCBs, PCDDs, PCDFs for humans and wildlife. *Environmental Health Perspectives*. 106:775-792.

Tables

TABLE 1

Soil TEQ Results - ERA Support

Dow Chemical Company, Michigan Operations

Sampling Location	Location ID	Field Sample ID	Sample Media	Sample Depth (ft)	TEQ (ng/kg)
Plot 1: Reference Site - Sanford, MI Gladwin Forest	TRU-02687	060104-SOI-02687-00.5	Soil	0.0-0.5	1.77
	TRU-02688	060104-SOI-02688-00.5	Soil	0.0-0.5	0.28
	TRU-02689	060104-SOI-02689-00.5	Soil	0.0-0.5	3.57
	TRU-02690	060104-SOI-02690-00.5	Soil	0.0-0.5	0.42
Plot 2: Reference Site - Chippewa Nature Preserve	CHR-02695	060204-SOI-02695-00.5	Soil	0.0-0.5	9.26
	CHR-02696	060204-SOI-02696-00.5	Soil	0.0-0.5	13.90
	CHR-02697	060204-SOI-02697-00.5	Soil	0.0-0.5	9.20
	CHR-02698	060204-SOI-02698-00.5	Soil	0.0-0.5	16.98
Plot 3: Smith's Crossing (near Bailey Bridge Rd.)	MIC-02703	060304-SOI-02703-00.5	Soil	0.0-0.5	326.89
	MIC-02704	060304-SOI-02704-00.5	Soil	0.0-0.5	3159.40
	MIC-02705	060304-SOI-02705-00.5	Soil	0.0-0.5	2067.16
	MIC-02706	060304-SOI-02706-00.5	Soil	0.0-0.5	451.22
Plot 4: Tittabawassee Township Park	FRE-02711	060404-SOI-02711-00.5	Soil	0.0-0.5	1704.41
	FRE-02712	060404-SOI-02712-00.5	Soil	0.0-0.5	1487.74
	FRE-02713	060404-SOI-02713-00.5	Soil	0.0-0.5	3867.11
	FRE-02714	060404-SOI-02714-00.5	Soil	0.0-0.5	1359.28
Plot 5: Freeland Festival Park	FRE-02719	060304-SOI-02719-00.5	Soil	0.0-0.5	264.53
	FRE-02720	060304-SOI-02720-00.5	Soil	0.0-0.5	8919.82
	FRE-02721	060304-SOI-02721-00.5	Soil	0.0-0.5	164.21
	FRE-02722	060304-SOI-02722-00.5	Soil	0.0-0.5	3141.30
Plot 6: Imerman Park	THT-02727	060404-SOI-02727-00.5	Soil	0.0-0.5	4230.73
	THT-02728	060404-SOI-02728-00.5	Soil	0.0-0.5	2157.02
	THT-02729	060404-SOI-02729-00.5	Soil	0.0-0.5	2261.57
	THT-02730	060404-SOI-02730-00.5	Soil	0.0-0.5	4082.15

TABLE 2

Sediment TEQ Results - ERA Support
Dow Chemical Company, Michigan Operations

Sampling Location	Location ID	Field Sample ID	Sample Media	Sample Depth (ft)	TEQ (ng/kg)
Plot 1: Reference Site - Sanford, MI Gladwin Forest	TRU-02691	062804-SED-02691-00.2	Sediment	0.0-0.2	0.26
	TRU-02692	062804-SED-02692-00.2	Sediment	0.0-0.2	0.27
	TRU-02693	062804-SED-02693-00.2	Sediment	0.0-0.2	0.25
	TRU-02694	062804-SED-02694-00.2	Sediment	0.0-0.2	0.23
Plot 2: Reference Site - Chippewa Nature Preserve	CHR-02699	062904-SED-02699-00.2	Sediment	0.0-0.2	0.28
	CHR-02700	062904-SED-02700-00.2	Sediment	0.0-0.2	0.31
	CHR-02701	062904-SED-02701-00.2	Sediment	0.0-0.2	0.74
	CHR-02702	062904-SED-02702-00.2	Sediment	0.0-0.2	0.33
Plot 3: Smith's Crossing (near Bailey Bridge Rd.)	MIC-02707	063004-SED-02707-00.2	Sediment	0.0-0.2	4.73
	MIC-02708	063004-SED-02708-00.2	Sediment	0.0-0.2	3.79
	MIC-02709	063004-SED-02709-00.2	Sediment	0.0-0.2	9.64
	MIC-02710	063004-SED-02710-00.2	Sediment	0.0-0.2	43.12
Plot 4: Tittabawassee Township Park	FRE-02715	063004-SED-02715-00.2	Sediment	0.0-0.2	9.27
	FRE-02716	063004-SED-02716-00.2	Sediment	0.0-0.2	9.24
	FRE-02717	063004-SED-02717-00.2	Sediment	0.0-0.2	177.69
	FRE-02718	063004-SED-02718-00.2	Sediment	0.0-0.2	12.32
Plot 5: Freeland Festival Park	FRE-02723	063004-SED-02723-00.2	Sediment	0.0-0.2	14.14
	FRE-02724	063004-SED-02724-00.2	Sediment	0.0-0.2	366.29
	FRE-02725	063004-SED-02725-00.2	Sediment	0.0-0.2	133.63
	FRE-02726	063004-SED-02726-00.2	Sediment	0.0-0.2	195.45
Plot 6: Imerman Park	THT-02731	062904-SED-02731-00.2	Sediment	0.0-0.2	3.95
	THT-02732	062904-SED-02732-00.2	Sediment	0.0-0.2	8.06
	THT-02733	062904-SED-02733-00.2	Sediment	0.0-0.2	44.79
	THT-02734	062904-SED-02734-00.2	Sediment	0.0-0.2	4.85

TABLE 3

Detected Constituents in Soil - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
VOCs (ug/kg)																		
1,1,1,2-TETRACHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,1,1-TRICHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,1,2,2-TETRACHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,1,2-TRICHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,1-DICHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,1-DICHLOROETHENE	0	4		0	4		0	4		0	4		0	4		0	4	
1,2,3-TRICHLOROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
1,2,3-TRICHLOROPROPANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,2,4-TRICHLOROBENZENE	0	8		0	4		0	8		0	8		0	8		0	8	
1,2,4-TRIMETHYLBENZENE	1	4	0.7	0	3		4	4	3.5	4	4	6.0	2	4	2.4	4	4	6.2
1,2-DIBROMOETHANE (EDB)	0	4		0	4		0	4		0	4		0	4		0	4	
1,2-DICHLOROBENZENE	0	4		0	3		3	4	1.5	0	4		0	4		0	4	
1,2-DICHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,2-DICHLOROPROPANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,3,5-TRIMETHYLBENZENE (MESITYLENE)	0	4		0	3		4	4	1.4	4	4	2.1	2	4	1.6	4	4	5.5
1,3-DICHLOROBENZENE	0	4		0	4		1	4	0.6	0	4		0	4		0	4	
1,4-DICHLOROBENZENE	0	4		0	4		3	4	5.3	0	4		0	4		1	4	2.3
2-HEXANONE	0	4		0	4		0	4		0	4		0	4		0	4	
ACETONE	4	4	142.0	4	4	168.0	4	4	86.7	4	4	109.0	2	4	144.0	4	4	218.0
ACETONITRILE	0	4		0	4		0	4		0	4		0	4		0	4	
ACROLEIN	0	4		0	4		0	4		0	4		0	4		0	4	
ACRYLONITRILE	0	4		0	4		0	4		0	4		0	4		0	4	
ALLYL CHLORIDE (3-CHLOROPROPENE)	0	4		0	4		0	4		0	4		0	4		0	4	
BENZENE	1	4	2.6	0	4		4	4	4.2	4	4	8.4	2	4	9.4	4	4	8.6
BROMOBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
BROMOCHLOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
BROMODICHLOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
BROMOFORM	0	4		0	4		0	4		0	4		0	4		0	4	
BROMOMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
CARBON DISULFIDE	3	4	10.7	3	4	13.4	4	4	30.5	4	4	24.9	2	4	25.8	4	4	35.9
CARBON TETRACHLORIDE	0	4		0	4		0	4		0	4		0	4		0	4	
CHLOROBENZENE	0	4		0	4		4	4	10.3	0	4		0	4		1	4	2.6
CHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
CHLOROFORM	0	4		0	4		0	4		0	4		0	4		0	4	
CHLOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	0	4		0	4		0	4		0	4		0	4		0	4	
cis-1,2-DICHLOROETHENE	0	4		0	4		0	4		0	4		0	4		1	4	1.8
cis-1,3-DICHLOROPROPENE	0	4		0	4		0	4		0	4		0	4		0	4	
DIBROMOCHLOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
DIBROMOMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
DICHLORODIFLUOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
DIETHYL ETHER (ETHYL ETHER)	0	4		0	4		0	4		0	4		0	4		0	4	
ETHYL BENZENE	3	4	1.4	1	4	1.6	4	4	4.0	4	4	6.6	2	4	5.2	4	4	6.8
ETHYL METHACRYLATE	0	4		0	3		0	4		0	4		0	4		0	4	
ISOBUTANOL	0	4		0	4		0	4		0	4		0	4		0	4	
ISOPROPYLBENZENE (CUMENE)	0	4		0	3		0	4		0	4		0	4		0	4	
m,p-XYLENES	1	4	1.2	0	3		4	4	5.0	4	4	7.9	2	4	6.6	4	4	7.9

TABLE 3

Detected Constituents in Soil - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
METHYL ETHYL KETONE (2-BUTANONE)	4	4	12.8	3	4	17.3	1	4	5.4	4	4	17.5	2	4	18.4	4	4	36.1
METHYL IODIDE (IODOMETHANE)	0	4		0	4		0	4		0	4		0	4		0	4	
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	0	4		0	3		0	4		0	4		0	4		0	4	
METHYL METHACRYLATE	0	4		0	3		0	4		0	4		0	4		0	4	
METHYL tert-BUTYL ETHER (MTBE)	0	4		0	4		0	4		0	4		0	4		0	4	
METHYLACRYLONITRILE	0	4		0	4		0	4		0	4		0	4		0	4	
METHYLENE CHLORIDE	0	4		0	4		0	4		0	4		0	4		0	4	
N-BUTYLBENZENE	0	4		0	3		0	4		0	4		0	4		0	4	
N-PROPYLBENZENE	0	4		0	3		1	4	0.6	3	4	1.5	1	4	0.8	2	4	1.5
O-XYLENE	0	4		0	3		4	4	1.9	4	4	3.1	2	4	2.2	4	4	3.0
PENTOCHLORETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
P-ISOPROPYLtolUENE (P-CYMENE)	0	4		0	7		0	4		0	4		0	4		0	4	
PROPIONITRILE, ETHYL CYANIDE	0	4		0	4		0	4		0	4		0	4		0	4	
SEC-BUTYLBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
STYRENE	0	4		0	4		0	4		0	4		0	4		0	4	
TERT-BUTYLBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
TETRAChLORoETHENE (PCE)	0	4		0	4		0	4		0	4		0	4		0	4	
TETRAHYDROFURAN	0	4		0	3		0	4		0	4		0	4		0	4	
TOLUENE	3	4	3.7	1	4	5.1	4	4	11.6	4	4	20.0	2	4	18.2	4	4	21.9
TRANS-1,2-DICHLOROETHENE	0	4		0	4		0	4		0	4		0	4		0	4	
TRANS-1,3-DICHLOROPROPENE	0	4		0	3		0	4		0	4		0	4		0	4	
TRANS-1,4-DICHLORO-2-BUTENE	0	4		0	7		0	4		0	4		0	4		0	4	
TRICHLOROETHENE (TCE)	0	4		0	3		0	4		0	4		0	4		0	4	
TRICHLOROFUOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
VINYL ACETATE	0	4		0	4		0	4		0	4		0	4		0	4	
VINYL CHLORIDE	0	4		0	4		0	4		0	4		0	4		0	4	
Xylenes, Total	1	4	1.2	1	3	1.2	4	4	6.9	4	4	11.0	2	4	8.7	4	4	10.9
SVOCs (ug/kg)																		
1,2,3,4-TETRAChLOROBENZENE	0	4		0	4		3	4	56.7	0	4		0	4		0	4	
1,2,4,5-TETRAChLOROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
1,3-DINITROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
1,4-DIOXANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,4-NAPHTHOQUINONE	0	4		0	4		0	4		0	4		0	4		0	4	
1-NAPHTHYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
2,3,4,6-TETRAChLOROPHENOL	0	4		0	4		3	4	337.0	1	4	121.0	0	4		0	4	
2,4,5-TRICHLOROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2,4,6-TRICHLOROPHENOL	0	4		0	4		3	4	22.1	1	4	15.8	2	4	29.8	4	4	30.3
2,4-DICHLOROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2,4-DIMETHYLPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2,4-DINITROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2,4-DINITROTOLUENE	0	4		0	4		0	4		0	4		0	4		0	4	
2,6-DICHLOROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2,6-DINITROTOLUENE	0	4		0	4		0	4		0	4		0	4		0	4	
2-CHLORONAPHTHALENE	0	4		0	4		0	4		0	4		0	4		0	4	
2-CHLOROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2-METHYLNAPHTHALENE	0	4		0	4		0	4		0	4		0	4		0	4	
2-METHYLPHENOL (O-CRESOL)	0	4		0	4		0	4		0	4		0	4		0	4	

TABLE 3

Detected Constituents in Soil - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
2-NAPHTHYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
2-NITROANILINE	0	4		0	4		0	4		0	4		0	4		0	4	
2-NITROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2-PICOLINE (ALPHA-PICOLINE)	0	4		0	4		0	4		0	4		0	4		0	4	
3 & 4-METHYLPHENOL (M,P-CRESOL)	0	4		0	4		0	4		0	4		0	4		0	4	
3,3'-DICHLOROBENZIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
3,3'-DIMETHYLBENZIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
3-METHYLCHOLANTHRENE	0	4		0	4		0	4		0	4		0	4		0	4	
3-NITROANILINE	0	4		0	4		0	4		0	4		0	4		0	4	
4,6-DINITRO-2-METHYLPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
4-AMINOBIPHENYL	0	4		0	4		0	4		0	4		0	4		0	4	
4-BROMOPHENYL PHENYL ETHER	0	4		0	4		0	4		0	4		0	4		0	4	
4-CHLORO-3-METHYLPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
4-CHLOROANILINE	0	4		0	4		0	4		0	4		0	4		0	4	
4-CHLOROPHENYL PHENYL ETHER	0	4		0	4		0	4		0	4		0	4		0	4	
4-NITROANILINE	0	4		0	4		0	4		0	4		0	4		0	4	
4-NITROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
4-NITROQUINOLINE-1-OXIDE	0	4		0	4		0	4		0	4		0	4		0	4	
4-TERT BUTYLPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
5-NITRO-O-TOLUIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
7,12-DIMETHYLBENZ(a)ANTHRACENE	0	4		0	4		0	4		0	4		0	4		0	4	
ACENAPHTHENE	0	4		0	4		0	4		0	4		0	4		0	4	
ACENAPHTHYLENE	0	4		0	4		1	4	9.3	0	4		2	4	23.1	3	4	35.0
ACETOPHENONE	0	4		0	4		0	4		0	4		0	4		0	4	
ALPHA, ALPHA DIMETHYLPHENETHYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
ANILINE	0	4		0	4		0	4		0	4		0	4		0	4	
ANTHRACENE	0	4		0	4		4	4	32.6	4	4	19.0	2	4	26.2	4	4	30.5
ARAMITE (TOTAL)	0	4		0	4		0	4		0	4		0	4		0	4	
BENZO(a)ANTHRACENE	0	4		0	4		3	4	85.2	4	4	54.9	4	4	87.6	4	4	96.9
BENZO(a)PYRENE	0	4		0	4		4	4	79.4	4	4	61.1	4	4	85.0	4	4	111.0
BENZO(b)FLUORANTHENE	0	4		0	4		4	4	156.0	4	4	88.2	4	4	115.0	4	4	157.0
BENZO(g,h,i)PERYLENE	0	4		0	4		4	4	69.3	4	4	28.7	3	4	38.0	4	4	61.6
BENZO(k)FLUORANTHENE	0	4		0	4		4	4	148.0	4	4	44.2	3	4	57.6	4	4	73.2
BENZYL ALCOHOL	0	4		4	4	35.8	3	4	25.2	3	4	27.4	4	4	34.5	0	4	
BENZYL BUTYL PHTHALATE	0	4		0	4		0	4		0	4		0	4		0	4	
BIS(2-CHLOROETHOXY) METHANE	0	4		0	4		0	4		0	4		0	4		0	4	
BIS(2-CHLOROETHYL) ETHER	0	4		0	4		0	4		0	4		0	4		0	4	
BIS(2-ETHYLHEXYL) PHTHALATE	3	4	48.0	4	4	58.5	4	4	159.0	3	4	42.9	4	4	51.3	4	4	55.5
CARBAZOLE	0	4		0	4		2	4	22.6	2	4	13.0	0	4		3	4	14.1
CHLOROBENZILATE	0	4		0	4		0	4		0	4		0	4		0	4	
CHRYSENE	0	4		1	4	8.1	4	4	104.0	4	4	69.6	4	4	106.0	4	4	134.0
DIALLATE (TOTAL of Cis and Trans Isomers)	0	4		0	4		0	4		0	4		0	4		0	4	
DIBENZ(a,h)ANTHRACENE	0	4		0	4		0	4		0	4		0	4		0	4	
DIBENZOFURAN	0	4		0	4		1	4	11.1	0	4		0	4		0	4	
DIETHYL PHTHALATE	0	4		0	4		0	4		0	4		0	4		0	4	
DIMETHYL PHTHALATE	0	4		0	4		0	4		0	4		0	4		0	4	
DI-N-BUTYL PHTHALATE	0	4		0	4		2	4	21.8	3	4	15.0	3	4	12.4	4	4	50.7
DI-N-OCTYLPHTHALATE	0	4		0	4		0	4		0	4		0	4		0	4	

TABLE 3

Detected Constituents in Soil - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
DIPHENYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
ETHYL METHANESULFONATE	0	4		0	4		0	4		0	4		0	4		0	4	
FLUORANTHENE	0	4		1	4	16.7	4	4	218.0	4	4	116.0	4	4	191.0	4	4	218.0
FLUORENE	0	4		0	4		1	4	18.3	0	4		0	4		1	4	11.9
HEXBROMOBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROBENZENE	0	4		0	4		4	4	46.9	4	4	56.0	2	4	150.0	4	4	153.0
HEXACHLOROBUTADIENE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROCYCLOPENTADIENE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROPHENONE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROPROPENE	0	4		0	4		0	4		0	4		0	4		0	4	
INDENO(1,2,3-c,d)PYRENE	0	4		0	4		1	4	51.4	0	4		0	4		0	4	
ISODRIN	0	4		0	4		0	4		0	4		0	4		0	4	
ISOPHORONE	0	4		0	4		0	4		0	4		0	4		0	4	
ISOSAFROLE	0	4		0	4		0	4		0	4		0	4		0	4	
METHAPYRILENE	0	4		0	4		0	4		0	4		0	4		0	4	
METHYL METHANESULFONATE	0	4		0	4		0	4		0	4		0	4		0	4	
NAPHTHALENE	0	4		0	4		0	4		0	4		0	4		0	4	
NITROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSODIETHYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSODIMETHYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSO-DI-N-BUTYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSODI-N-PROPYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSODIPHENYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSOMETHYLETHYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSOMORPHOLINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSPIPERIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSPYRROLIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
O-PHENYL PHENOL	0	4		0	4		1	4	53.9	0	4		0	4		0	4	
O-TOLUIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
P-DIMETHYLAMINOAZOBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
PENTACHLOROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
PENTACHLORONITROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
PENTACHLOROPHENOL	0	4		0	4		1	4	114.0	0	4		0	4		0	4	
PHENACETIN	0	4		0	4		0	4		0	4		0	4		0	4	
PHENANTHRENE	0	4		0	4		4	4	167.0	4	4	60.7	4	4	100.0	4	4	113.0
PHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
P-PHENYLENEDIAMINE	1	4	1210.0	0	4		0	4		0	4		0	4		0	4	
PRONAMIDE	0	4		0	4		0	4		0	4		0	4		0	4	
PYRENE	0	4		1	4	10.3	4	4	155.0	4	4	72.0	4	4	114.0	4	4	146.0
PYRIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
RONNEL	0	4		0	4		0	4		0	4		0	4		0	4	
SAFROLE	0	4		0	4		0	4		0	4		0	4		0	4	
SYM-TRINITROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
PCBs (ug/kg)																		
PCB-1016 (AROCLO 1016)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1221 (AROCLO 1221)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1232 (AROCLO 1232)	0	4		0	4		0	4		0	4		0	4		0	4	

TABLE 3

Detected Constituents in Soil - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
PCB-1242 (AROCLOLOR 1242)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1248 (AROCLOLOR 1248)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1254 (AROCLOLOR 1254)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1260 (AROCLOLOR 1260)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1262 (AROCLOLOR 1262)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1268 (AROCLOLOR 1268)	0	4		0	4		0	4		0	4		0	4		0	4	
Pesticides (ug/kg)																		
1,2-DIBROMO-3-CHLOROPROPANE	0	4		0	4		0	4		0	4		0	4		0	4	
4,4'-DDD	0	4		0	4		4	4	9.3	3	4	50.2	3	4	13.6	2	4	50.3
4,4'-DDE	0	4		0	4		4	4	11.4	4	4	130.0	3	4	4.4	2	4	125.0
4,4'-DDT	0	4		0	4		3	4	20.0	4	4	258.0	2	4	18.4	2	4	156.0
ALDRIN	0	4		0	4		0	4		0	4		0	4		0	4	
ALPHA BHC	0	4		0	4		0	4		0	4		0	4		0	4	
ALPHA-CHLORDANE	0	4		0	4		0	4		0	4		0	4		0	4	
BETA BHC	0	4		0	4		0	4		0	4		0	4		0	4	
BP-6(PBB)	0	4		0	4		0	4		0	4		0	4		0	4	
CHLORDANE	0	4		0	4		0	4		0	4		0	4		0	4	
DELTA BHC	0	4		0	4		0	4		0	4		0	4		0	4	
DIELDRIN	0	4		0	4		1	4	3.9	0	4		1	4	2.2	0	4	
DIMETHOATE	0	4		0	4		0	4		0	4		0	4		0	4	
DISULFOTON	0	4		0	4		0	4		0	4		0	4		0	4	
ENDOSULFAN I	0	4		0	3		0	4		0	4		0	4		0	4	
ENDOSULFAN II	0	4		0	4		0	4		1	4	37.2	0	4		0	4	
ENDOSULFAN SULFATE	0	4		0	4		0	4		0	4		0	4		0	4	
ENDRIN	0	4		0	4		4	4	12.2	2	4	37.9	2	4	14.4	2	4	38.1
ENDRIN ALDEHYDE	0	4		0	4		0	4		0	4		0	4		0	4	
ENDRIN KETONE	0	4		0	4		0	4		0	4		0	4		0	4	
FAMPHUR	0	4		0	4		0	4		0	4		0	4		0	4	
GAMMA BHC (LINDANE)	0	4		0	4		0	4		0	4		0	4		1	4	18.0
GAMMA-CHLORDANE	0	4		0	4		0	4		0	4		0	4		0	4	
HEPTACHLOR	0	4		0	4		0	4		0	4		0	4		0	4	
HEPTACHLOR EPOXIDE	0	4		0	4		0	4		0	4		0	4		0	4	
KEPONE	0	2		0	4		0	4		0	4		0	4		0	4	
METHOXYCHLOR	0	4		0	4		1	4	8.1	2	4	150.0	3	4	32.7	0	4	
MIREX	0	4		0	4		0	4		0	4		0	4		0	4	
O,O,O-TRIETHYL PHOSPHOROTHIOATE	0	4		0	4		0	4		0	4		0	4		0	4	
O,O-DIETHYL O-2-PYRAZINYL PHOSPHOROTHIOATE (THIONAZIN)	0	4		0	4		0	4		0	4		0	4		0	4	
PARATHION, ETHYL (PARATHION)	0	4		0	4		0	4		0	4		0	4		0	4	
PARATHION, METHYL	0	4		0	4		0	4		0	4		0	4		0	4	
PHORATE	0	4		0	4		0	4		0	4		0	4		0	4	
TETRAETHYL DITHIOPYROPHOSPHATE (SULFOTEPP)	0	4		0	4		0	4		0	4		0	4		0	4	
TOXAPHENE	0	4		0	4		0	4		0	4		0	4		0	4	
Herbicides (ug/kg)																		
2,4,5-T (TRICHLOROPHOXYACETIC ACID)	0	4		0	4		0	4		0	4		0	4		0	4	
2,4-D (DICHLOROPHOXYACETIC ACID)	0	4		0	4		0	4		0	4		0	4		0	4	
DINOSEB	0	4		0	4		0	4		0	4		0	4		0	4	

TABLE 3

Detected Constituents in Soil - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
SILVEX (2,4,5-TP)	0	4		0	4		0	4		0	4		0	4		0	4	
Metals (ug/kg)																		
ANTIMONY	0	4		0	4		0	4		0	4		0	4		1	4	187.0
ARSENIC	4	4	3020.0	4	4	6050.0	3	4	2980.0	4	4	8910.0	4	4	5820.0	4	4	14200.0
BARIUM	4	4	34300.0	4	4	68800.0	4	4	21700.0	4	4	63500.0	4	4	58800.0	4	4	72200.0
BERYLLIUM	3	4	219.0	4	4	434.0	3	4	139.0	4	4	439.0	4	4	348.0	4	4	527.0
CADMIUM	0	4		4	4	533.0	3	4	313.0	4	4	610.0	4	4	678.0	4	4	897.0
CHROMIUM, TOTAL	4	4	5520.0	4	4	15400.0	4	4	6380.0	4	4	14500.0	4	4	10500.0	4	4	26400.0
COBALT	4	4	2830.0	4	4	5390.0	4	4	1830.0	4	4	5150.0	4	4	3530.0	4	4	5740.0
COPPER	4	4	3970.0	4	4	26900.0	4	4	13300.0	4	4	30100.0	4	4	13700.0	4	4	51900.0
LEAD	4	4	9210.0	4	4	15000.0	4	4	10900.0	4	4	21500.0	4	4	15000.0	4	4	40200.0
LITHIUM	4	4	4830.0	4	4	8770.0	4	4	3180.0	4	4	11200.0	4	4	8280.0	4	4	13100.0
MERCURY	4	4	25.2	4	4	66.7	4	4	82.4	4	4	119.0	4	4	114.0	4	4	239.0
NICKEL	4	4	5320.0	4	4	13200.0	4	4	4600.0	4	4	12900.0	4	4	8890.0	4	4	16300.0
SELENIUM	0	4		0	4		0	4		0	4		0	4		0	4	
SILVER	0	4		0	4		0	4		0	4		0	4		0	4	
THALLIUM	0	4		0	4		0	4		0	4		0	4		0	4	
TIN	0	4		0	4		1	4	1790.0	0	4		0	4		0	4	
VANADIUM	4	4	7690.0	4	4	14700.0	4	4	4180.0	4	4	13600.0	4	4	9080.0	4	4	16100.0
ZINC	4	4	18000.0	4	4	48700.0	4	4	36500.0	4	4	84100.0	4	4	73800.0	4	4	112000.0
Other (mg/kg)																		
CYANIDE, TOTAL	2	4	0.1	3	4	0.2	1	4	0.1	4	4	2.3	4	4	0.2	4	4	2.0
TOTAL ORGANIC CARBON	4	4	12802.0	4	4	26130.0	4	4	33798.0	4	4	39375.0	2	4	6659.0	4	4	27520.0

TABLE 4

Detected Constituents in Sediment - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
VOCs (ug/kg)																		
1,1,1,2-TETRACHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,1,1-TRICHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,1,2,2-TETRACHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,1,2-TRICHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,1-DICHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,1-DICHLOROETHENE	0	4		0	4		0	4		0	4		0	4		0	4	
1,2,3-TRICHLOROBENZENE	1	4	1.1	0	4		0	4		0	4		0	4		0	4	
1,2,3-TRICHLOROPROPANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,2,4-TRICHLOROBENZENE	1	8	0.9	0	8		0	8		0	8		0	8		0	8	
1,2,4-TRIMETHYLBENZENE	4	4	2.9	4	4	3.4	4	4	2.1	4	4	2.7	4	4	3.0	4	4	1.7
1,2-DIBROMOETHANE (EDB)	0	4		0	4		0	4		0	4		0	4		0	4	
1,2-DICHLOROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
1,2-DICHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,2-DICHLOROPROPANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,3,5-TRIMETHYLBENZENE (MESITYLENE)	4	4	1.0	4	4	1.3	0	4		0	4		2	4	3.4	1	4	1.4
1,3-DICHLOROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
1,4-DICHLOROBENZENE	0	4		0	4		2	4	2.2	0	4		0	4		0	4	
2-HEXANONE	0	4		0	4		0	4		0	4		0	4		1	4	17.6
ACETONE	0	4		1	4	3.8	1	4	6.2	1	4	6.3	0	4		0	4	
ACETONITRILE	0	4		0	4		0	4		0	4		0	4		0	4	
ACROLEIN	0	4		0	4		0	4		0	4		0	4		0	4	
ACRYLONITRILE	0	4		0	4		0	4		0	4		0	4		0	4	
ALLYL CHLORIDE (3-CHLOROPROPENE)	0	4		0	4		0	4		0	4		0	4		0	4	
BENZENE	1	4	6.3	3	4	4.8	4	4	5.1	4	4	4.8	4	4	4.8	3	4	4.2
BROMOBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
BROMOCHLOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
BROMODICHLOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
BROMOFORM	0	4		0	4		0	4		0	4		0	4		0	4	
BROMOMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
CARBON DISULFIDE	4	4	34.4	4	4	24.9	4	4	25.4	4	4	35.0	4	4	84.9	4	4	14.2
CARBON TETRACHLORIDE	0	4		0	4		0	4		0	4		0	4		0	4	
CHLOROBENZENE	0	4		0	4		1	4	4.4	0	4		0	4		0	4	
CHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
CHLOROFORM	0	4		0	4		0	4		0	4		0	4		0	4	
CHLOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
CHLOROPRENE (2-CHLORO-1,3-BUTADIENE)	0	4		0	4		0	4		0	4		0	4		0	4	
cis-1,2-DICHLOROETHENE	0	4		0	4		0	4		0	4		0	4		0	4	
cis-1,3-DICHLOROPROPENE	0	4		0	4		0	4		0	4		0	4		0	4	
DIBROMOCHLOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
DIBROMOMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
DICHLORODIFLUOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
DIETHYL ETHER (ETHYL ETHER)	0	4		0	4		0	4		0	4		0	4		0	4	
ETHYL BENZENE	4	4	4.4	4	4	4.9	4	4	2.9	4	4	3.9	4	4	4.9	4	4	2.5
ETHYL METHACRYLATE	0	4		0	4		0	4		0	4		0	4		0	4	
ISOBUTANOL	0	4		0	4		0	4		0	4		0	4		0	4	
ISOPROPYLBENZENE (CUMENE)	0	4		0	4		0	4		0	4		0	4		0	4	
m,p-XYLENES	4	4	5.4	4	4	5.6	4	4	3.8	4	4	4.8	4	4	5.7	4	4	2.8
METHYLETHYL KETONE (2-BUTANONE)	0	4		0	4		0	4		0	4		0	4		0	4	

TABLE 4

Detected Constituents in Sediment - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
METHYL IODIDE (IODOMETHANE)	0	4		0	4		0	4		0	4		0	4		0	4	
METHYL ISOBUTYL KETONE (4-METHYL-2-PENTANONE)	0	4		0	4		0	4		0	4		0	4		0	4	
METHYL METHACRYLATE	0	4		0	4		0	4		0	4		0	4		0	4	
METHYL tert-BUTYL ETHER (MTBE)	0	4		0	4		0	4		0	4		0	4		0	4	
METHYLACRYLONITRILE	0	4		0	4		0	4		0	4		0	4		0	4	
METHYLENE CHLORIDE	0	4		0	4		0	4		0	4		0	4		0	4	
N-BUTYLBENZENE	4	4	0.7	1	4	0.6	0	4		0	4		0	4		0	4	
N-PROPYLBENZENE	4	4	0.8	3	4	1.0	0	4		0	4		0	4		0	4	
O-XYLENE	4	4	2.7	4	4	2.4	4	4	1.5	4	4	2.0	4	4	2.7	3	4	1.1
PENTOCHLORETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
P-ISOPROPYLtolUENE (P-CYMENE)	0	4		0	4		0	4		0	4		0	4		0	4	
PROPIONITRILE, ETHYL CYANIDE	0	4		0	4		0	4		0	4		0	4		0	4	
SEC-BUTYLBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
STYRENE	0	4		0	4		0	4		0	4		0	4		0	4	
TERT-BUTYLBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
TETRAChLORoETHENE (PCE)	0	4		0	4		0	4		0	4		0	4		0	4	
TETRAHYDROFURAN	0	4		0	4		0	4		0	4		0	4		0	4	
TOLUENE	4	4	13.1	4	4	12.0	4	4	5.8	4	4	10.3	4	4	8.6	4	4	5.5
TRANS-1,2-DICHLOROETHENE	0	4		0	4		0	4		0	4		0	4		0	4	
TRANS-1,3-DICHLOROPROPENE	0	4		0	4		0	4		0	4		0	4		0	4	
TRANS-1,4-DICHLORO-2-BUTENE	0	4		0	4		0	4		0	4		0	4		0	4	
TRICHLOROETHENE (TCE)	0	4		0	4		0	4		0	4		0	4		0	4	
TRICHLOROFUOROMETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
VINYL ACETATE	0	4		0	4		0	4		0	4		0	4		0	4	
VINYL CHLORIDE	0	4		0	4		0	4		0	4		0	4		0	4	
Xylenes, Total	4	4	7.8	4	4	7.9	4	4	5.3	4	4	6.7	4	4	8.3	4	4	4.0
SVOCs (ug/kg)																		
1,2,3,4-TETRAChLORoBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
1,2,4,5-TETRAChLORoBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
1,3-DINITROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
1,4-DIOXANE	0	4		0	4		0	4		0	4		0	4		0	4	
1,4-NAPHTHOQUINONE	0	4		0	4		0	4		0	4		0	4		0	4	
1-NAPHTHylAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
2,3,4,6-TETRAChLOROPHENOL	0	4		0	4		1	4	158.0	0	4		0	4		0	4	
2,4,5-TRICHLOROPHENOL	0	4		0	4		1	4	12.1	0	4		0	4		0	4	
2,4,6-TRICHLOROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2,4-DICHLOROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2,4-DIMETHYLPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2,4-DINITROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2,4-DINITROToluENE	0	4		0	4		0	4		0	4		0	4		0	4	
2,6-DICHLOROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2,6-DINITROToluENE	0	4		0	4		0	4		0	4		0	4		0	4	
2-CHLORONAPHTHALENE	0	4		0	4		0	4		0	4		0	4		0	4	
2-CHLOROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2-METHYLNAPHTHALENE	0	4		0	4		0	4		0	4		0	4		0	4	
2-METHYLPHENOL (O-CRESOL)	0	4		0	4		0	4		0	4		0	4		0	4	
2-NAPHTHylAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
2-NITROANILINE	0	4		0	4		0	4		0	4		0	4		0	4	

TABLE 4

Detected Constituents in Sediment - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
2-NITROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
2-PICOLINE (ALPHA-PICOLINE)	0	4		0	4		0	4		0	4		0	4		0	4	
3 & 4-METHYLPHENOL (M,P-CRESOL)	0	4		0	4		0	4		0	4		0	4		0	4	
3,3'-DICHLOROBENZIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
3,3'-DIMETHYLBENZIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
3-METHYLCHOLANTHRENE	0	4		0	4		0	4		0	4		0	4		0	4	
3-NITROANILINE	0	4		0	4		0	4		0	4		0	4		0	4	
4,6-DINITRO-2-METHYLPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
4-AMINOBIPHENYL	0	4		0	4		0	4		0	4		0	4		0	4	
4-BROMOPHENYL PHENYL ETHER	0	4		0	4		0	4		0	4		0	4		0	4	
4-CHLORO-3-METHYLPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
4-CHLOROANILINE	0	4		0	4		0	4		0	4		0	4		0	4	
4-CHLOROPHENYL PHENYL ETHER	0	4		0	4		0	4		0	4		0	4		0	4	
4-NITROANILINE	0	4		0	4		0	4		0	4		0	4		0	4	
4-NITROPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
4-NITROQUINOLINE-1-OXIDE	0	4		0	4		0	4		0	4		0	4		0	4	
4-TERT BUTYLPHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
5-NITRO-O-TOLUIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
7,12-DIMETHYLBENZ(a)ANTHRACENE	0	4		0	4		0	4		0	4		0	4		0	4	
ACENAPHTHENE	0	4		0	4		0	4		0	4		1	4	11.9	1	4	18.0
ACENAPHTHYLENE	1	4	183.0	0	4		0	4		0	4		0	4		0	4	
ACETOPHENONE	0	4		0	4		0	4		0	4		0	4		0	4	
ALPHA, ALPHA DIMETHYLPHENETHYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
ANILINE	0	4		0	4		0	4		0	4		0	4		0	4	
ANTHRACENE	1	4	41.5	1	4	16.2	1	4	8.4	1	4	15.3	1	4	14.6	2	4	53.7
ARAMITE (TOTAL)	0	4		0	4		0	4		0	4		0	4		0	4	
BENZO(a)ANTHRACENE	1	4	256.0	1	4	51.7	0	4		0	4		1	4	51.4	2	4	90.9
BENZO(a)PYRENE	1	4	331.0	1	4	34.5	1	4	10.5	2	4	31.1	1	4	58.6	2	4	65.0
BENZO(b)FLUORANTHENE	1	4	607.0	1	4	38.8	0	4		2	4	27.6	1	4	68.2	2	4	60.4
BENZO(g,h,i)PERYLENE	1	4	345.0	1	4	16.2	0	4		2	4	12.5	1	4	65.6	2	4	23.3
BENZO(k)FLUORANTHENE	1	4	207.0	1	4	13.9	0	4		2	4	44.8	1	4	28.6	2	4	48.7
BENZYL ALCOHOL	0	4		0	4		0	4		0	4		0	4		0	4	
BENZYL BUTYL PHTHALATE	0	4		0	4		0	4		0	4		0	4		0	4	
BIS(2-CHLOROETHOXY) METHANE	0	4		0	4		0	4		0	4		0	4		0	4	
BIS(2-CHLOROETHYL) ETHER	0	4		0	4		0	4		0	4		0	4		0	4	
BIS(2-ETHYLHEXYL) PHTHALATE	0	4		0	4		0	4		0	4		1	4	43.1	0	4	
CARBAZOLE	1	4	34.8	0	4		0	4		0	4		0	4		1	4	19.0
CHLOROBENZILATE	0	4		0	4		0	4		0	4		0	4		0	4	
CHRYSENE	1	4	414.0	1	4	38.8	1	4	8.2	2	4	43.8	1	4	43.7	2	4	90.0
DIALLATE (TOTAL of Cis and Trans Isomers)	0	4		0	4		0	4		0	4		0	4		0	4	
DIBENZ(a,h)ANTHRACENE	0	4		0	4		0	4		0	4		0	4		0	4	
DIBENZOFURAN	0	4		0	4		0	4		0	4		0	4		1	4	17.4
DIETHYL PHTHALATE	0	4		0	4		0	4		0	4		0	4		0	4	
DIMETHYL PHTHALATE	0	4		0	4		0	4		0	4		0	4		0	4	
DI-N-BUTYL PHTHALATE	0	4		0	4		2	4	60.2	3	4	149.0	0	4		0	4	
DI-N-OCTYLPHthalate	0	4		0	4		0	4		0	4		0	4		0	4	
DIPHENYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
ETHYL METHANESULFONATE	0	4		0	4		0	4		0	4		0	4		0	4	
FLUORANTHENE	1	4	247.0	1	4	65.9	2	4	14.5	2	4	94.2	2	4	67.9	2	4	225.0

TABLE 4

Detected Constituents in Sediment - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
FLUORENE	1	4	25.8	0	4		0	4		0	4		0	4		1	4	32.3
HEXAABROMOBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROBUTADIENE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROCYCLOPENTADIENE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROETHANE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROPHENONE	0	4		0	4		0	4		0	4		0	4		0	4	
HEXACHLOROPROPENE	0	4		0	4		0	4		0	4		0	4		0	4	
INDENO(1,2,3-c,d)PYRENE	1	4	305.0	0	4		0	4		0	4		0	4		0	4	
ISODRIN	0	4		0	4		0	4		0	4		0	4		0	4	
ISOPHORONE	0	4		0	4		0	4		0	4		0	4		0	4	
ISOSAFROLE	0	4		0	4		0	4		0	4		0	4		0	4	
METHAPYRILENE	0	4		0	4		0	4		0	4		0	4		0	4	
METHYL METHANESULFONATE	0	4		0	4		0	4		0	4		0	4		0	4	
NAPHTHALENE	0	4		0	4		0	4		0	4		0	4		0	4	
NITROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSODIETHYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSODIMETHYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSO-DI-N-BUTYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSODI-N-PROPYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSODIPHENYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSOMETHYLETHYLAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSOMORPHOLINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSOPIPERIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
N-NITROSYLPHYLORROLIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
O-PHENYL PHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
O-TOLUIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
P-DIMETHYLAMINOAZOBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
PENTACHLOROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
PENTACHLORONITROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
PENTACHLOROPHENOL	0	4		0	4		1	4	75.2	0	4		0	4		0	4	
PHENACETIN	0	4		0	4		0	4		0	4		0	4		0	4	
PHENANTHRENE	1	4	25.5	1	4	21.9	1	4	14.1	2	4	63.1	2	4	35.5	2	4	239.0
PHENOL	0	4		0	4		0	4		0	4		0	4		0	4	
P-PHENYLENEDIAMINE	0	4		0	4		0	4		0	4		0	4		0	4	
PRONAMIDE	0	4		0	4		0	4		0	4		0	4		0	4	
PYRENE	1	4	261.0	1	4	60.9	1	4	15.2	2	4	89.8	2	4	57.8	2	4	167.0
PYRIDINE	0	4		0	4		0	4		0	4		0	4		0	4	
RONNEL	0	4		0	4		0	4		0	4		0	4		0	4	
SAFROLE	0	4		0	4		0	4		0	4		0	4		0	4	
SYM-TRINITROBENZENE	0	4		0	4		0	4		0	4		0	4		0	4	
PCBs (ug/kg)																		
PCB-1016 (AROCLOL 1016)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1221 (AROCLOL 1221)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1232 (AROCLOL 1232)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1242 (AROCLOL 1242)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1248 (AROCLOL 1248)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1254 (AROCLOL 1254)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1260 (AROCLOL 1260)	0	4		0	4		0	4		0	4		0	4		0	4	

TABLE 4

Detected Constituents in Sediment - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
PCB-1262 (AROCLOL 1262)	0	4		0	4		0	4		0	4		0	4		0	4	
PCB-1268 (AROCLOL 1268)	0	4		0	4		0	4		0	4		0	4		0	4	
Pesticides (ug/kg)																		
1,2-DIBROMO-3-CHLOROPROPANE	0	4		0	4		0	4		0	4		0	4		0	4	
4,4'-DDD	0	4		4	4	10.0	0	4		0	4		0	4		0	4	
4,4'-DDE	0	4		2	4	4.9	0	4		0	4		0	4		0	4	
4,4'-DDT	0	4		2	4	15.5	0	4		0	4		0	4		0	4	
ALDRIN	0	4		0	4		0	4		0	4		0	4		0	4	
ALPHA BHC	0	4		0	4		0	4		0	4		0	4		0	4	
ALPHA-CHLORDANE	0	4		0	4		0	4		0	4		0	4		0	4	
BETA BHC	0	4		0	4		0	4		0	4		0	4		0	4	
BP-6 (2,2',4,4',5,5'-HEXABROMOBIPHENYL)	0	4		0	4		0	4		0	4		0	4		0	4	
CHLORDANE	0	4		0	4		0	4		0	4		0	4		0	4	
DELTA BHC	0	4		0	4		0	4		0	4		0	4		0	4	
DIELDRIN	0	4		0	4		0	4		0	4		0	4		0	4	
DIMETHOATE	0	4		0	4		0	4		0	4		0	4		0	4	
DISULFOTON	0	4		0	4		0	4		0	4		0	4		0	4	
ENDOSULFAN I	0	4		0	4		0	4		0	4		0	4		0	4	
ENDOSULFAN II	0	4		0	4		0	4		0	4		0	4		0	4	
ENDOSULFAN SULFATE	0	4		0	4		0	4		0	4		0	4		0	4	
ENDRIN	0	4		0	4		0	4		0	4		0	4		0	4	
ENDRIN ALDEHYDE	0	4		0	4		0	4		0	4		0	4		0	4	
ENDRIN KETONE	0	4		0	4		0	4		0	4		0	4		0	4	
FAMPHUR	0	4		0	4		0	4		0	4		0	4		0	4	
GAMMA BHC (LINDANE)	0	4		0	4		0	4		0	4		0	4		0	4	
GAMMA-CHLORDANE	0	4		0	4		0	4		0	4		0	4		0	4	
HEPTACHLOR	0	4		0	4		0	4		0	4		0	4		0	4	
HEPTACHLOR EPOXIDE	0	4		0	4		0	4		0	4		0	4		0	4	
KEPONE	0	4		0	4		0	4		0	4		0	4		0	4	
METHOXYCHLOR	0	4		0	4		0	4		0	4		0	4		0	4	
MIREX	0	4		0	4		0	4		0	4		0	4		0	4	
O,O,O-TRIETHYL PHOSPHOROTHIOATE	0	4		0	4		0	4		0	4		0	4		0	4	
O,O-DIETHYL O-2-PYRAZINYL PHOSPHOROTHIOATE (THIONAZIN)	0	4		0	4		0	4		0	4		0	4		0	4	
PARATHION, ETHYL (PARATHION)	0	4		0	4		0	4		0	4		0	4		0	4	
PARATHION, METHYL	0	4		0	4		0	4		0	4		0	4		0	4	
PHORATE	0	4		0	4		0	4		0	4		0	4		0	4	
TETRAETHYL DITHIOPYROPHOSPHATE (SULFOTEPP)	0	4		0	4		0	4		0	4		0	4		0	4	
TOXAPHENE	0	4		0	4		0	4		0	4		0	4		0	4	
Herbicides (ug/kg)																		
2,4,5-T (TRICHLOROPHOXYACETIC ACID)	0	4		0	4		0	4		0	4		0	4		0	4	
2,4-D (DICHLOROPHOXYACETIC ACID)	0	4		0	4		0	4		0	4		0	4		0	4	
DINOSEB	0	4		0	4		0	4		0	4		0	4		0	4	
SILVEX (2,4,5-TP)	0	4		0	4		0	4		0	4		0	4		0	4	
Metals (ug/kg)																		
ANTIMONY	0	4		0	4		0	4		0	4		0	4		0	4	
ARSENIC	4	4	1960.0	3	4	1220.0	2	4	2800.0	1	4	4700.0	3	4	2260.0	2	4	3170.0
BARIUM	4	4	19900.0	4	4	11600.0	4	4	13400.0	4	4	11600.0	4	4	6260.0	4	4	11700.0

TABLE 4

Detected Constituents in Sediment - ERA Support
Dow Chemical Company, Michigan Operations

Chemical Name	Plot 1: Reference Site - Sanford, MI Gladwin Forest			Plot 2: Reference Site - Chippewa Nature Preserve			Plot 3: Smith's Crossing (near Bailey Bridge Rd.)			Plot 4: Smith's Crossing			Plot 5: Freeland Festival Park			Plot 6: Imerman Park		
	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect	Detects	Number of Samples	Max Detect
BERYLLIUM	4	4	182.0	4	4	135.0	4	4	69.9	4	4	75.7	4	4	164.0	2	4	98.3
CADMIUM	0	4		0	4		0	4		0	4		0	4		2	4	378.0
CHROMIUM, TOTAL	4	4	2400.0	4	4	3730.0	4	4	4550.0	4	4	4880.0	4	4	5120.0	4	4	5880.0
COBALT	4	4	1170.0	4	4	1380.0	4	4	1710.0	4	4	1530.0	4	4	1650.0	4	4	1600.0
COPPER	3	4	1990.0	4	4	2700.0	1	4	1670.0	1	4	1680.0	1	4	1590.0	4	4	2910.0
LEAD	4	4	2410.0	4	4	3830.0	4	4	2780.0	4	4	1980.0	4	4	1840.0	4	4	2210.0
LITHIUM	4	4	2930.0	4	4	2940.0	4	4	2390.0	4	4	2260.0	4	4	3180.0	4	4	2350.0
MERCURY	4	4	4.1	4	4	4.1	0	4		0	4		0	4		4	4	13.7
NICKEL	4	4	2560.0	4	4	2230.0	4	4	2730.0	4	4	3080.0	4	4	2950.0	4	4	2410.0
SELENIUM	0	4		0	4		0	4		0	4		0	4		0	4	
SILVER	0	4		0	4		0	4		0	4		0	4		0	4	
THALLIUM	0	4		0	4		0	4		0	4		1	4	1400.0	0	4	
TIN	0	4		0	4		0	4		0	4		0	4		1	4	76200.0
VANADIUM	4	4	4120.0	4	4	4780.0	4	4	2970.0	4	4	3460.0	4	4	4280.0	4	4	3170.0
ZINC	4	4	6760.0	4	4	12300.0	4	4	71300.0	4	4	13600.0	4	4	26700.0	4	4	22300.0
Other (mg/kg)																		
CYANIDE, TOTAL	4	4	4.6	4	4	7.0	3	4	2.5	3	4	7.1	4	4	2.3	1	4	1.1
TOTAL ORGANIC CARBON	0	4		0	4		0	4		0	4		0	4		1	4	1159.0

Figure

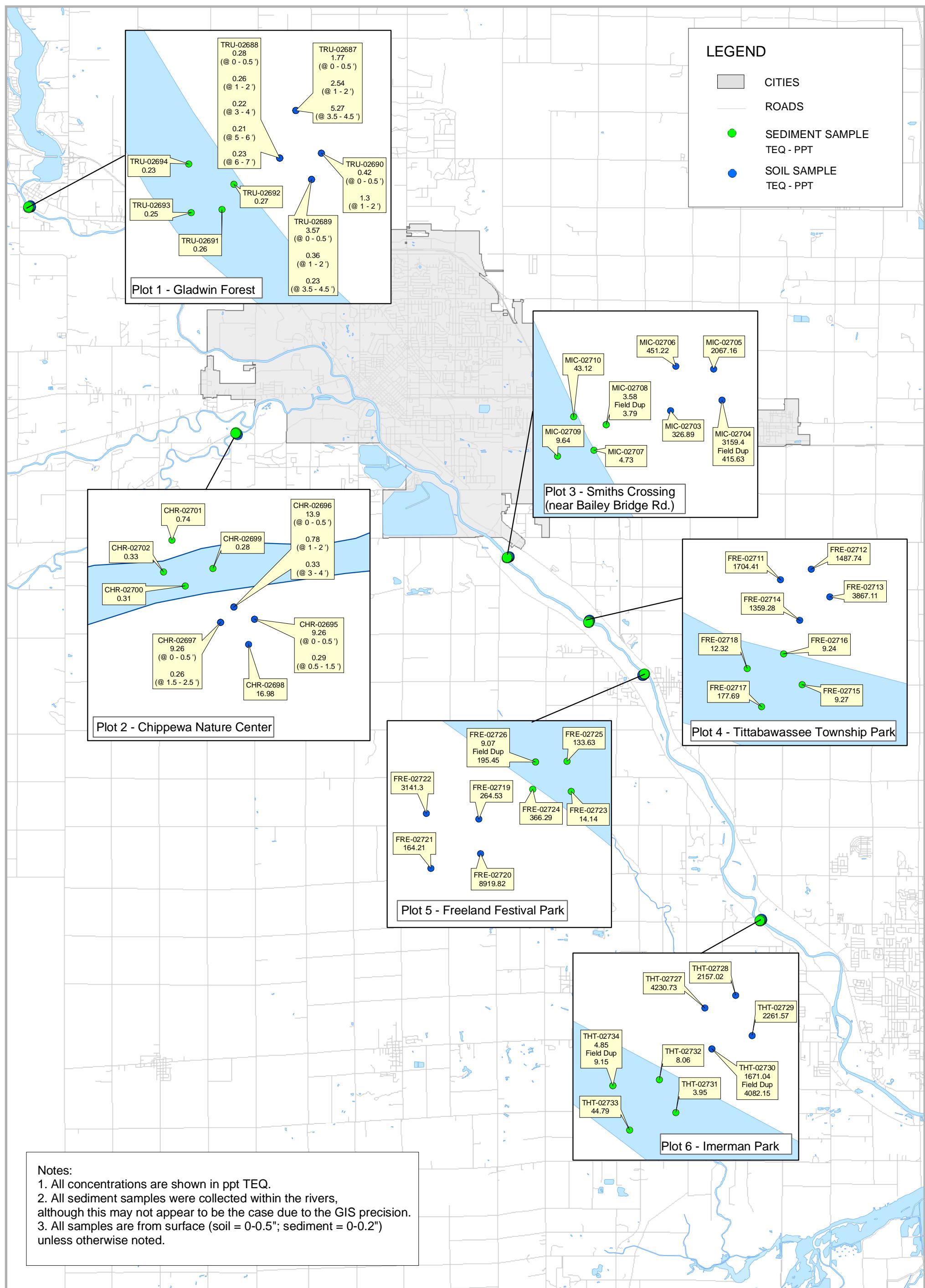


FIGURE 1-1
Dioxin TEQ Concentrations from ERA Support Soil and Sediment Sampling
ERA Support Data Report
Dow Midland Offsite Corrective Actions Program

CH2MHILL

Appendix A
Sample Station Summary

TABLE A-1
 Sample Station Summary
Dow MOCA – ERA Support Sampling

Station ID	Northing	Easting	Sample ID	Sample Depth Interval	Analytical Batch
CHR-02695	765367.00989686	13141613.0021610	060204-SOI-02695-00.5	0-0.5	204060425/25032
CHR-02695	765367.00989686	13141613.0021610	060204-SOI-02695-01.5	0.5-1.5	204060425/25032
CHR-02696	765399.30515686	13141559.6117187	060204-SOI-02696-00.5	0-0.5	204060425/25032
CHR-02696	765399.30515686	13141559.6117187	060204-SOI-02696-02.0	1-2	204060425/25032
CHR-02696	765399.30515686	13141559.6117187	060204-SOI-02696-04.0	3-4	204060425/20406 0509/25032
CHR-02697	765359.31427275	13141525.4179058	060204-SOI-02697-00.5	0-0.5	204060425/25032
CHR-02697	765359.31427275	13141525.4179058	060204-SOI-02697-00.5-D	0-0.5	204060425/25032
CHR-02697	765359.31427275	13141525.4179058	060204-SOI-02697-02.5	1.5-2.5	204060425/25032
CHR-02698	765302.12326401	13141598.2032890	060204-SOI-02698-00.5	0-0.5	204060425/25032
FRE-02711	744827.69925104	13180400.7368453	060404-SOI-02711-00.5	0-0.5	204060509/25040
FRE-02712	744849.82450890	13180467.5506191	060404-SOI-02712-00.5	0-0.5	204060509/25040
FRE-02713	744790.61653224	13180507.4894427	060404-SOI-02713-00.5	0-0.5	204060509/25040
FRE-02714	744740.10371104	13180442.1587911	060404-SOI-02714-00.5	0-0.5	204060509/25040
FRE-02719	738806.19974040	13186387.0484284	060304-SOI-02719-00.5	0-0.5	204060509/25041
FRE-02720	738737.05182083	13186390.6120142	060304-SOI-02720-00.5	0-0.5	204060425/20406 0509/25041
FRE-02721	738707.95120931	13186291.1177929	060304-SOI-02721-00.5	0-0.5	204060509/25041
FRE-02722	738817.25913436	13186282.5613651	060304-SOI-02722-00.5	0-0.5	204060509/25041
MIC-02703	751785.17118242	13171532.9393020	060304-SOI-02703-00.5	0-0.5	204060509/25041
MIC-02704	751805.25840742	13171632.8169052	060304-SOI-02704-00.5	0-0.5	204060509/25041
MIC-02704	751805.25840742	13171632.8169052	060304-SOI-02704-00.5-D	0-0.5	204060509/25041
MIC-02705	751865.94634652	13171616.7263010	060304-SOI-02705-00.5	0-0.5	204060509/25041
MIC-02706	751871.45106650	13171542.7441283	060304-SOI-02706-00.5	0-0.5	204060509/25041
THT-02727	711828.45064237	13199410.3319258	060404-SOI-02727-00.5	0-0.5	204060509/25040

TABLE A-1
 Sample Station Summary
Dow MOCA – ERA Support Sampling

Station ID	Northing	Easting	Sample ID	Sample Depth Interval	Analytical Batch
THT-02728	711851.84551420	13199466.3487147	060404-SOI-02728-00.5	0-0.5	204060509/25040
THT-02729	711777.76719517	13199496.6124118	060404-SOI-02729-00.5	0-0.5	204060509/25040
THT-02730	711753.85668371	13199422.9301136	060404-SOI-02730-00.5	0-0.5	204060509/25040
THT-02730	711753.85668371	13199422.9301136	060404-SOI-02730-00.5-D	0-0.5	204060509/25040
TRU-02687	790591.14750209	13118737.7895843	060104-SOI-02687-00.5-D	0-0.5	204060324/25027
TRU-02687	790591.14750209	13118737.7895843	060104-SOI-02687-00.5	0-0.5	204060324/25027
TRU-02687	790591.14750209	13118737.7895843	060104-SOI-02687-02.0	1-2	204060324/20406 0425/25027
TRU-02687	790591.14750209	13118737.7895843	060104-SOI-02687-04.5	3.5-4.5	204060324/25027
TRU-02688	790483.04404016	13118701.1853406	060104-SOI-02688-00.5	0-0.5	204060324/25027
TRU-02688	790483.04404016	13118701.1853406	060104-SOI-02688-02.0	1-2	204060324/25027
TRU-02688	790483.04404016	13118701.1853406	060104-SOI-02688-04.0	3-4	204060324/25027
TRU-02688	790483.04404016	13118701.1853406	060104-SOI-02688-06.0	5-6	204060324/25027
TRU-02688	790483.04404016	13118701.1853406	060104-SOI-02688-07.0	6-7	204060324/25027
TRU-02689	790435.03313188	13118773.5889969	060104-SOI-02689-00.5	0-0.5	204060324/25027
TRU-02689	790435.03313188	13118773.5889969	060104-SOI-02689-02.0	1-2	204060324/25027
TRU-02689	790435.03313188	13118773.5889969	060104-SOI-02689-04.5	3.5-4.5	204060324/25027
TRU-02690	790494.66601846	13118795.9438626	060104-SOI-02690-00.5	0-0.5	204060324/25027
TRU-02690	790494.66601846	13118795.9438626	060104-SOI-02690-02.0	1-2	204060324/25027

TABLE A-2
 QC Sample Summary
Dow MOCA – ERA Support Sampling

QC Sample Type	Number of QC Samples Collected	Actual Event Frequency	MOCA QAPP-Specified Frequency¹
Trip Blanks	11	One per cooler containing samples for VOC analysis	One per cooler containing samples for VOC analysis.
Matrix Spikes/Matrix Spike Duplicates	2	4.9%	5.0%
Field Duplicates	4	9.8%	10%
Field Blanks	2*	4.9%	One per source of water used for decontamination
Equipment Blanks	2	4.9%	5.0%

¹ MOCA Program Requirement. Not necessary to meet this on a project-specific or media-specific basis..

* - Field blank 060204-QCW-02743-B did not contain sample containers for SVOC analysis. Field blank 060304-QCW-02744-B did not contain a sample container for TOC analysis.

TABLE A-3
Sample Station Summary
Dow MOCA – ERA Support Sampling

Station ID	Northing	Easting	Sample ID	Sample Depth Interval (ft.)	Analytical Batch
CHR-02699	765499.20048020	13141504.9419111	062904-SED-02699-00.2	0-0.2	204063023/25104
CHR-02700	765453.33325440	13141433.4080832	062904-SED-02700-00.2	0-0.2	204063023/25104
CHR-02701	765572.05850760	13141398.7836199	062904-SED-02701-00.2	0-0.2	204063023/25104
CHR-02702	765489.86264560	13141377.6794184	062904-SED-02702-00.2	0-0.2	204063023/25104
FRE-02715	744601.77355420	13180447.5877071	063004-SED-02715-00.2	0-0.2	204070208/25108
FRE-02716	744667.46255530	13180407.8073088	063004-SED-02716-00.2	0-0.2	204070208/25108
FRE-02717	744553.94177620	13180360.1578401	063004-SED-02717-00.2	0-0.2	204070208/25108
FRE-02718	744636.25809250	13180329.4630902	063004-SED-02718-00.2	0-0.2	204070208/25108
FRE-02723	738861.18675550	13186570.3195981	063004-SED-02723-00.2	0-0.2	204070208/25108
FRE-02724	738865.65970140	13186493.6837365	063004-SED-02724-00.2	0-0.2	204070208/25108
FRE-02725	738921.29244450	13186562.1414993	063004-SED-02725-00.2	0-0.2	204070208/25108
FRE-02726	738919.39949370	13186499.7127128	063004-SED-02726-00.2	0-0.2	204070208/25108
FRE-02726	738919.39949370	13186499.7127128	063004-SED-02726-00.2-D	0-0.2	204070208/25108
MIC-02707	751707.86357190	13171383.6847607	063004-SED-02707-00.2	0-0.2	204070208/25108
MIC-02708	751757.34912300	13171407.5558159	063004-SED-02708-00.2	0-0.2	204070208/25108
MIC-02708	751757.34912300	13171407.5558159	063004-SED-02708-00.2-D	0-0.2	204070208/25108
MIC-02709	751696.58412850	13171312.6318133	063004-SED-02709-00.2	0-0.2	204070208/25108
MIC-02710	751773.62680640	13171343.6385509	063004-SED-02710-00.2	0-0.2	204070208/25108
THT-02731	711637.17938430	13199357.2068423	062904-SED-02731-00.2	0-0.2	204063023/20407 0208/25104
THT-02732	711697.15480300	13199326.6545232	062904-SED-02732-00.2	0-0.2	204063023/25104
THT-02733	711604.84688760	13199272.1500566	062904-SED-02733-00.2	0-0.2	204063023/25104
THT-02734	711686.28496590	13199241.6845073	062904-SED-02734-00.2	0-0.2	204063023/25104
THT-02734	711686.28496590	13199241.6845073	062904-SED-02734-00.2-D	0-0.2	204063023/25104
TRU-02691	790367.25776800	13118570.7168383	062804-SED-02691-00.2	0-0.2	204063023/25103
TRU-02691	790367.25776800	13118570.7168383	062804-SED-02692-00.2	0-0.2	204063023/25103
TRU-02693	790359.43711170	13118501.4681201	062804-SED-02693-00.2	0-0.2	204063023/25103
TRU-02694	790469.91488880	13118496.0703482	062804-SED-02694-00.2	0-0.2	204063023/25103

TABLE A-4
 QC Sample Summary
Dow MOCA – ERA Support Sampling

QC Sample Type	Number of QC Samples Collected	Actual Event Frequency	MOCA QAPP-Specified Frequency¹
Trip Blanks	2	One per cooler containing samples for VOC analysis	One per cooler containing samples for VOC analysis.
Matrix Spikes/Matrix Spike Duplicates	3	12.5%	5.0%
Field Duplicates	3	12.5%	10%
Field Blanks	0*	0%	One per source of water used for decontamination
Equipment Blanks	2	8.3%	5.0%

¹ = Frequency requirements are program wide frequencies and requirements, if not met above, will be met on a program wide basis.

* - The Tittabawassee River water was used to decontaminate the sample equipment so no Field Blank was collected.

Appendix B
Analytical Validation Summary

Data Validation Summary – Midland ERA Support Sampling

The purpose of this document is to present the results of the data validation process for the samples collected for The Dow Chemical Company ERA Support Sampling Event at the Dow Chemical Company site in Midland, Michigan. The samples were collected between the dates of June 14 and July 16, 2004.

The Quality Control areas that were reviewed and the resulting findings are documented within each subsection that follows. This data was validated for compliance with the analytical method requirements. This process also included a review of the data to assess the accuracy, precision, and completeness based upon procedures described in the guidance documents such as the Environmental Protection Agency (EPA) National Functional Guidelines for Inorganic Data Review (EPA 2002), National Functional Guidelines for Organic Data Review (EPA 1999), National Functional Guidelines for Chlorinated Dioxin/Furan Data Review (EPA 2002), and the Quality Control Criteria provided in the Quality Assurance Project Plan (QAPP). Quality assurance/Quality control (QA/QC) summary forms and data reports provided by the laboratory were reviewed.

Samples were submitted to Gulf Coast Analytical Laboratories, Inc., in Baton Rouge, Louisiana for all analyses, except for the Dioxin/Furan analyses. The samples requiring Dioxin/Furan analyses were submitted to Alta Analytical Laboratory, Inc., in El Dorado Hills, California.

Sample results that were not within the acceptance limits were appended with a primary qualifying flag by CH2M HILL, which consisted of a single- or double-letter code that indicated a possible problem with the data. The qualifying flags originated during the data review and validation processes. In addition, secondary, “sub-qualifier” flags were also applied. The secondary qualifiers provide the reasoning behind the assignment of a qualifier flag to the data.

Table B.1 lists the changes in data qualifiers, due to the validation process, except for specific samples requiring volatile analyses that were qualified due to low surrogate recoveries only. It contains columns for the Laboratory Qualifier (Lab Qual) as received from the laboratory, primary qualifiers (Final Qual), and secondary qualifiers (Validation Reasons). The primary and secondary qualifiers are presented and defined below.

The following primary flags were used to qualify the data:

[=] Detected. The analyte was analyzed for and detected at the concentration shown.

[J] Estimated. The analyte was present but the reported value may not be accurate or precise.

[U] Undetected. The analyte was analyzed for but not detected above the method detection limit.

[UJ] Detection limit estimated. The analyte was analyzed for but qualified as not detected; the result is estimated.

[R] Rejected. The data is not useable.

The following Secondary Qualifier Codes were used to qualify the data.

Validation Reason	Definition
2SH	Second source calibration verification standard greater than the upper control limit
2SL	Second source calibration verification standard less than the lower control limit
ABH	Ambient blank concentration greater than the RL
ABL	Ambient blank concentration less than the RL
BKD	The result is qualified because the DDT and/or Endrin breakdown was greater than 20%.
CBKD	The result is qualified because the combined DDT/Endrin breakdown is greater than 30%.
CCBH	Continuing calibration blank concentration greater than the RL
CCBL	Continuing calibration blank concentration less than RL
CCC	CCC Failure
CCRRF	Continuing calibration relative response factor below the LCL
CCVF	Continuing Calibration not analyzed at the required frequency
CCVH	Continuing calibration recovery greater than upper control limit
CCVL	Continuing calibration recovery less than lower control limit
CF	Confirmation result
CFP	Confirmation precision exceeded
CO	Compounds were reported combined on one column
DL	Secondary dilution
EBH	Equipment blank concentration greater than the RL
EBL	Equipment blank concentration less than the RL
EMPC	Estimated Maximum Possible Concentration Reported
FBH	Field blank concentration greater than the RL
FBL	Field blank concentration less than the RL

Validation Reason	Definition
FD	Field duplicate exceeds RPD criteria
GPC	The results are qualified due to GPC calibration deficiencies.
HTA	Analytical Holding Time exceeded
HTP	Preparation Holding Time exceeded
IB	Result between the MDL and RL
ICBH	Initial calibration blank concentration greater than the RL
ICBL	Initial calibration blank concentration less than RL
ICR2	Initial calibration exceeded the R2 for first order regression
ICRR	Exceeds RSD criteria and initial calibration exceeded the R2 for first order regression
ICRRF	Initial calibration relative response factor below the LCL
ICRSD	Initial calibration RSD exceeded
ICSP	Single Point Initial Calibration used for Quantitation
ICVSH	Initial calibration verification recovery greater than upper control limit
ICVSL	Initial calibration verification recovery less than lower control limit
ISH	Internal standard response exceeded the UCL criteria
ISL	Internal standard response exceeded the LCL criteria
LBH	Laboratory blank contamination greater than the RL
LBL	Laboratory blank contamination less than the RL
LCSDH	LCSD recovery greater than criteria
LCSDL	LCSD recovery less than the criteria
LCSH	LCS recovery greater than criteria
LCSL	LCS recovery less than the criteria
LCSP	LCS/LCSD RPD criteria exceeded

Validation Reason	Definition
LDP	Laboratory Duplicate Precision out
LR	Linear range exceeded. Concentration above linear range.
MSA	Quantitated by the method of standard additions
MSALL	Global matrix spike flagging
MSAR2	method of standard additions R2 out
MSDH	Matrix spike duplicate recovery criteria greater than the upper limit
MSDL	Matrix spike duplicate recovery criteria less than the lower limit
MSDP	Matrix Spike Duplicate RPD criteria exceedance
MSH	Matrix spike recovery criteria greater than the upper limit
MSL	Matrix spike recovery criteria less than the lower limit
NMS	Not Site-specific Matrix Spike
PH	Sample pH out. Not properly preserved.
PRM	Result differs from Preliminary Result
PSH	Post spike recovery criteria greater than the upper limit
PSL	Post spike recovery criteria less than the lower limit
RA	Sample was reanalyzed
RE	Sample was re-extracted and reanalyzed
RT	Result is outside the laboratory determined retention time window
SCRN	Screening method and/or data
SDIL	Serial Dilution %D exceeds the upper control limit
SPCC	SPCC Failure
SSH	Surrogate recovery greater than upper limit
SSL	Surrogate recovery less than lower limit

Validation Reason	Definition
SSR	Surrogate spike recovery <10%
TBH	Trip blank concentration greater than the RL
TBL	Trip blank concentration less than the RL
TD	Total Concentration < Dissolved Concentration
TEMP	Cooler temperature out upon arrival
TIC	Tentatively identified compound
TN	GC/MS tune does not meet criteria
XCC	No Continuing Calibration analyzed in the analytical batch
X-DL	Data not used due to dilution; another value is more appropriate or data was not requested
XIC	No initial calibration analyzed in the analytical batch
XICVS	Initial calibration verification standard was not analyzed
XLCS	No LCS in the analytical batch
XLD	Laboratory Duplicate not reported
XMS	Matrix Spike not reported
XMSD	Matrix Spike Duplicate not reported
X-RE	Data not used due to reanalysis another value is more appropriate or data was not requested

Organic Parameters

Quality Control Review

The following list represents the QA/QC measures that were reviewed during the data quality evaluation procedure for the Dioxin/Furan data.

- **Holding Times** – The holding times are evaluated to verify that samples were extracted and analyzed within holding times.
- **Blank samples** – Method blanks and equipment blanks were provided for this project. Blank samples enable the reviewer to determine if an analyte may be attributed to sampling or laboratory procedures, rather than environmental contamination from site activities.
- **Surrogate Recoveries** – Surrogate Compounds are added to each sample and the recoveries are used to monitor lab performance and possible matrix interference.
- **Lab Control Sample/Lab Control Sample Duplicate (LCS/LCSD)** – These samples are a "controlled matrix", either laboratory reagent water or Ottawa sand, in which target compounds have been added prior to extraction/analysis. The recoveries serve as a monitor of the overall performance of each step during the analysis, including sample preparation.
- **Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples** – Spike recovery is used to evaluate potential matrix interferences, as well as accuracy. Precision information is also determined by calculating the reproducibility between the recoveries of each spiked parameter.
- **Field Duplicate Samples** – These samples are collected to determine precision between a native and its duplicate. This information can only be determined when target compounds are detected.
- **GC/MS Tuning** – The mass spectrum of the tuning compound is evaluated for method compliance. The criteria are established to verify the proper mass assignment and mass resolution.
- **Initial Calibration** – The initial calibration ensures that the instrument is capable of producing acceptable qualitative and quantitative data for the compounds of interest.
- **Continuing Calibration** – The continuing calibration checks satisfactory performance of the instrument and its predicted response to the target compounds.
- **Internal Standards** – The internal standards (retention time and response) are evaluated for method compliance. The internal standards are used in quantitation of the target parameters and monitor the instrument sensitivity and response for stability during each analysis.
- **Labeled Standard and Cleanup Standard Recoveries** – Labeled Standards and Cleanup Standard are added to each sample. The recoveries are used to monitor laboratory and method performance, and possible matrix interference.

- **Window Defining Mix/Column Performance Check** - The window defining mix establishes the appropriate switching times for the Selected Ion Monitoring (SIM) descriptors, and contains the first and last eluting isomers in each homologue.
- **Confirmation** - SW-846 method 8000 requires confirmation when the composition of samples is not well characterized. Chromatographic interferences result from co-elution of one or more compounds with the analyte of interest, or may be the result of the presence of a non-analyte peak in the retention time window of an analyte. Such co-elution problems affect quantitation as well as identification, and may result in poor agreement between the quantitative results from two dissimilar columns. Therefore, even when the identification has been confirmed on a dissimilar column, the agreement of the quantitative results on both columns is evaluated. Per SW-86 method 8000, 40% RPD criteria was used as the acceptance limit.

Holding Times

The holding times for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

All holding time requirements were met. No flags were applied.

Blank Samples

Blank samples for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

If a target parameter determined to be a common contaminant was reported in a field sample, and the concentration was below the level determined to be due to blank contamination, the following actions were taken:

- If the concentration was above or below the reporting limit, the numeric result was unchanged, but it was flagged "U", as undetected.
- If the concentration was below the reporting limit, the numeric result was changed to the value of the reporting limit, and it was flagged "U", as undetected.

Table B.2 lists the target parameters that were detected in the associated blank samples. Only dioxin/furan sample results were qualified "J", as estimated, due to potential blank contamination and are listed in Table B.1 with a Validation Note of "EBL" or "FBL".

Surrogates

The surrogate recoveries for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

The surrogate recoveries for 4-Bromofluorobenzene in several Volatile samples were below QC criteria of 84 percent, and were qualified "J" or "UJ" as estimated. The recoveries ranged from 65-83 percent. All other surrogate recoveries in the samples were within QC limits. The Laboratory sample Ids were 20406032401-09 and 20406032412-16, 20406042501-05, 07, 08 10

and 11, 204060450901-07 and 204060450910-20, and 20507020801, 08 and 15. In addition, selected semivolatile, pesticide, and herbicide sample results were qualified due to surrogate recoveries out of criteria and are listed in Table B.1 with a Validation Note of "SSL" or "SSH".

Lab Control Sample/Lab Control Sample Duplicate (LCS/LCSD)

The LCS/LCSD recoveries and relative percent differences (RPD) for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

Volatile and semivolatile sample results were qualified due to LCS recoveries out of criteria and are listed in Table B.1 with a Validation Note of "LCSL" or "LCSDL".

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

The MS/MSD recoveries and relative percent differences (RPD) for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

Volatile, semivolatile, and pesticide sample results were qualified due to MS/MSD recoveries and RPDs out of criteria and are listed in Table B.1 with a Validation Note of "MSL", "MSDL", "MSDH", or "MSDP".

Field Duplicate Samples

The field duplicate precision for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

In general, all field duplicate precision criteria were met. No flags were applied.

GC/MS Tuning

The GC/MS tuning criteria for each parameter were evaluated according to SW-846 requirements.

All tuning criteria were met. No flags were applied.

Initial and Continuing Calibration

The initial and continuing calibration criteria for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

Flags were applied to the compounds in the associated samples in the following manner:

- When the percent Relative Standard Deviation (%RSD) or correlation coefficient (R^2) was out in the initial calibration, all associated samples were qualified. Detected compounds were flagged "J" and non-detected compounds were flagged "UJ", as estimated.

- When the percent difference (%D) was low in the continuing calibration standards, detected compounds were flagged "J" and non-detected compounds were flagged "UJ", as estimated.
- When the percent difference (%D) was high in the continuing calibration standards, detected compounds were flagged "J", as estimated. Non-detected compounds were not flagged.
- When the Average Relative Response Factor (RRF) was low in the initial calibration, detected compounds were flagged "J", and non-detected compounds were flagged "UJ", as estimated.
- When the Relative Response Factor (RRF) was low in the continuing calibration, detected compounds were flagged "J", and non-detected compounds were flagged "UJ", as estimated.
- In extreme cases where the RRF was significantly low or there was no response, detected compounds were flagged "J", as estimated, and non-detected compounds were qualified "R", as rejected.
- When the Relative Response Factor (RRF) was low in the continuing calibration, detected compounds were flagged "J", and non-detected compounds were flagged "UJ", as estimated.
- In extreme cases where the RRF was significantly low or there was no response, detected compounds were flagged "J", as estimated, and non-detected compounds were qualified "R", as rejected.

Volatile, semivolatile, pesticide, and herbicide sample results were qualified due to calibration recoveries out of criteria and are listed in Table B.1 with a Validation Note of "CCVL", "CCVH", "CCRRF", "ICRSD", or "ICRRF".

Internal Standards

The internal standards for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

Volatile, pesticide, and dioxin sample results were qualified due to internal standard recoveries out of criteria and are listed in Table B.1 with a Validation Note of "ISL", or "ISH".

Labeled Standard and Cleanup Standards

The standard recoveries for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

All standards criteria were met. No flags were applied.

Window Defining Mix/Column Performance Check

The window defining mix and column performance check were evaluated according to SW-846 requirements and those presented in the QAPP.

All window defining mix criteria were met. No flags were applied.

Confirmation

The confirmation results for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

All confirmation criteria were met. No flags were applied.

Inorganic Parameters

Quality Control Review

The following list represents the QA/QC measures that are typically reviewed during the data quality evaluation procedure for inorganic parameters.

- **Holding Times** – The holding times are evaluated to verify that samples were extracted and analyzed within holding times.
- **Blank samples** – Sample preparation blanks, field blanks, initial calibration blanks/continuing calibration blanks were provided for this project. Blank samples enable the reviewer to determine if an analyte may be attributed to sampling or laboratory procedures, rather than environmental contamination from site activities.
- **Lab Control Sample (LCS)** – This sample is a "controlled matrix", in which target parameters have been added prior to digestion/analysis. The recoveries serve as a monitor of the overall performance of each step during the analysis, including sample preparation.
- **Field Duplicate Samples** – These samples are collected to determine precision between a native and its duplicate. This information can only be determined when target compounds are detected.
- **Pre/Post Digestion Spike (MS/MSD)** – Spike recovery is used to evaluate potential matrix interferences, as well as accuracy. Precision information is also determined by calculating the reproducibility between the recoveries of each spiked parameter.
- **ICP Interference Check Sample** – This sample verifies the lab's interelement and background correction factors.
- **Initial Calibration Verification** – This parameter ensures that the instrument is capable of producing acceptable quantitative data for the target analyte list to be measured.
- **Continuing Calibration Verification** – This one-point, mid-range parameter establishes that the initial calibration is still valid by checking the performance of the instrument on a continual basis.
- **ICP Serial Dilution** – The serial dilution of samples quantitated by ICP determines whether or not significant physical or chemical interferences exist due to the sample matrix.

Holding Times

The holding times for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

All holding time requirements were met. No flags were applied.

Blank Samples

Blank samples for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

If a target parameter was reported in a field sample, and the concentration was below the level determined to be due to blank contamination (5 times the concentration in the associated QC blank samples), it was flagged as "U", not detected. Initial and continuing calibration blanks were also evaluated for possible contamination.

Metals sample results were qualified due to potential blank contamination and are listed in Table B.1 with a Validation Note of "EBL", "CCBL" or "LBL".

Lab Control Sample (LCS)

The LCS recoveries for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

All LCS criteria were met. No flags were applied.

Field Duplicate Samples

The field duplicate precision for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

All field duplicate precision criteria were met. No flags were applied.

Matrix Spike/Matrix Spike Duplicate (MS/MSD) Samples

The MS/MSD recoveries and relative percent differences (RPD) for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

Metals sample results were qualified due to MS/MSD recoveries out of criteria and are listed in Table B.1 with a Validation Note of "MSL" or "MSDL". Additionally, twenty-four antimony results were rejected, "R", due to low MS/MSD recoveries. The recoveries were less than 30 percent, ranging from 20-28 percent.

ICP Interference Check Sample

The ICP Interference Check Sample criteria for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

All ICP Interference Check Sample criteria were met. No flags were applied.

Initial and Continuing Calibration

The initial and continuing calibration criteria for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

All initial and continuing calibration criteria were met. No flags were applied.

Serial Dilution

The serial dilutions for each parameter were evaluated according to SW-846 requirements and those presented in the QAPP.

Metals sample results were qualified due to serial dilution exceedances and are listed in Table B.1 with a Validation Note of "SDIL".

Rejected Data

There were selected results qualified as "R", rejected, due to associated QC parameters out of criteria, such that there is not a valid result for that parameter in each sample. As discussed above, twenty-four antimony results were rejected, "R", due to low MS/MSD recoveries.

Conclusion

A review of the analytical data submitted for The Dow Chemical Company ERA Support has been completed. An overall evaluation of the data indicates that the sample handling, shipment, and analytical procedures have been adequately completed. The validation review demonstrated that the analytical systems were generally in control and the data results can be used in the decision making process.

Conclusions of the data quality evaluation process include the following:

- The laboratory analyzed the samples according to the EPA methods stated in the work plan as demonstrated by the deliverable summaries and analytical run sequences.
- Concentrations of blank contaminants were applied according to EPA *National Functional Guidelines* in order to reflect sample values that may be attributed to field or laboratory contamination.
- Sample results for metals above the MDL but less than five times the MDL may be attributed to instrument noise and/or low level contamination. Therefore, results at these low concentration levels may be described as potential false positives and may not be due to site-related activities.
- Sample results for target organic compounds above the MDL but less than the CRQL should be considered as uncertain but indicative of the presence of that compound at an estimated concentration.
- Except for the lower recoveries of 4-Bromofluorobenzene as discussed previously, the low number of surrogate spike recoveries, MS/MSD, and field duplicate results, out of acceptance limits, indicate that the sample matrix did not significantly interfere with the overall analytical process.

The project objectives or PARCCs were met, and the data can be used in the project decision-making process as qualified by the data quality evaluation process.

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT		VALIDATION REASON CODES
SED	DIOXIN	25104_009	062904-SED-02734-002-D	FD	SW8290	METHOD OCDD	1,2,3,4,7,8-HXCDF	93.3 =	93.3 NG/KG	J		4.98	EBL		
SED	DIOXIN	25104_009	062904-SED-02734-002-D	FD	SW8290	METHOD OCDD	1,2,3,4,7,8-HXCDF	4.36 =	4.36 NG/KG	J		2.48	EBL		
SED	DIOXIN	25108_014	063004-SED-02726-002-D	FD	SW8290	METHOD TOTAL TCDF		168 =D	168 NG/KG	J		0.5	EBL		
SED	DIOXIN	25108_013	063004-SED-02726-002	N	SW8290	METHOD OCDD		1030 =B	1030 NG/KG	J		4.96	EBL		
SED	DIOXIN	25108_013	063004-SED-02726-002	N	SW8290	METHOD TOTAL TCDF		2260 =D	2260 NG/KG	J		0.496	EBL		
SED	DIOXIN	25104_009	062904-SED-02734-002-D	FD	SW8290	METHOD TOTAL HXCDF		19.2 =	19.2 NG/KG	J		2.48	EBL		
SED	DIOXIN	25104_008	062904-SED-02734-002	N	SW8290	METHOD OCDD		56.2 =	56.2 NG/KG	J		4.85	EBL		
SED	DIOXIN	25104_008	062904-SED-02734-002	N	SW8290	METHOD OCDD		2.93 =	2.93 NG/KG	J		2.42	EBL		
SED	DIOXIN	25104_008	062904-SED-02734-002	N	SW8290	METHOD TOTAL HXCDF		14.4 =	14.4 NG/KG	J		2.42	EBL		
SED	DIOXIN	25104_007	062904-SED-02733-002	N	SW8290	METHOD OCDD		125 =	125 NG/KG	J		5.06	EBL		
SED	DIOXIN	25104_007	062904-SED-02733-002	N	SW8290	METHOD 1,2,3,4,7,8-HXCDF		14 =	14 NG/KG	J		2.53	EBL		
SED	DIOXIN	25104_007	062904-SED-02733-002	N	SW8290	METHOD TOTAL HXCDF		52 =	52 NG/KG	J		2.53	EBL		
SED	DIOXIN	25104_006	062904-SED-02732-002	N	SW8290	METHOD OCDD	1,2,3,4,7,8-HXCDF	133 =	133 NG/KG	J		4.96	EBL		
SED	DIOXIN	25104_006	062904-SED-02732-002	N	SW8290	METHOD TOTAL HXCDF		6.75 =	6.75 NG/KG	J		2.48	EBL		
SED	DIOXIN	25104_006	062904-SED-02732-002	N	SW8290	METHOD OCDD		28 =	28 NG/KG	J		2.48	EBL		
SED	DIOXIN	25104_005	062904-SED-02731-002	N	SW8290	METHOD OCDD		78.7 =	78.7 NG/KG	J		4.85	EBL		
SED	DIOXIN	25104_005	062904-SED-02731-002	N	SW8290	METHOD 1,2,3,4,7,8-HXCDF		3.35 =	3.35 NG/KG	J		2.43	EBL		
SED	DIOXIN	25104_005	062904-SED-02731-002	N	SW8290	METHOD TOTAL HXCDF		12.4 =	12.4 NG/KG	J		2.43	EBL		
SED	DIOXIN	25104_004	062904-SED-02702-002	N	SW8290	METHOD OCDD		7.35 =	7.35 NG/KG	J		5.03	EBL		
SED	DIOXIN	25104_004	062904-SED-02702-002	N	SW8290	METHOD TOTAL HXCDF		0.369 =	0.369 NG/KG	J		2.52	EBL		
SED	DIOXIN	25104_003	062904-SED-02701-002	N	SW8290	METHOD OCDD		46.8 =	46.8 NG/KG	J		4.86	EBL		
SED	DIOXIN	25104_003	062904-SED-02701-002	N	SW8290	METHOD 1,2,3,4,7,8-HXCDF		0.525 =J	0.525 NG/KG	J		2.43	EBL		
SED	DIOXIN	25104_003	062904-SED-02701-002	N	SW8290	METHOD TOTAL HXCDF		3.65 =	3.65 NG/KG	J		2.43	EBL		
SED	DIOXIN	25104_002	062904-SED-02700-002	N	SW8290	METHOD OCDD		5.47 =	5.47 NG/KG	J		4.86	EBL		
SED	DIOXIN	25108_007	063004-SED-02716-002	N	SW8290	METHOD OCDD		346 =B	346 NG/KG	J		4.93	EBL		
SED	DIOXIN	25108_007	063004-SED-02716-002	N	SW8290	METHOD TOTAL TCDF		161 =D	161 NG/KG	J		0.493	EBL		
SED	DIOXIN	25108_006	063004-SED-02715-002	N	SW8290	METHOD OCDD		392 =B	392 NG/KG	J		4.88	EBL		
SED	DIOXIN	25108_006	063004-SED-02715-002	N	SW8290	METHOD TOTAL TCDF		112 =D	112 NG/KG	J		0.488	EBL		
SED	DIOXIN	25108_005	063004-SED-02710-002	N	SW8290	METHOD OCDD		240 =D	240 NG/KG	J		0.488	EBL		
SED	DIOXIN	25108_004	063004-SED-02709-002	N	SW8290	METHOD OCDD		145 =B	145 NG/KG	J		4.94	EBL		
SED	DIOXIN	25108_004	063004-SED-02709-002	N	SW8290	METHOD TOTAL TCDF		157 =D	157 NG/KG	J		0.494	EBL		
SED	DIOXIN	25108_011	063004-SED-02724-002	N	SW8290	METHOD TOTAL TCDF		238 =D	238 NG/KG	J		0.498	EBL		
SED	DIOXIN	25108_010	063004-SED-02723-002	N	SW8290	METHOD OCDD		85.6 =B	85.6 NG/KG	J		4.9	EBL		
SED	DIOXIN	25108_010	063004-SED-02723-002	N	SW8290	METHOD TOTAL TCDF		254 =D	254 NG/KG	J		0.49	EBL		
SED	DIOXIN	25104_002	062904-SED-02700-002	N	SW8290	METHOD 1,2,3,4,7,8-HXCDF		0.161 =J	0.161 NG/KG	J		2.43	EBL		
SED	DIOXIN	25104_002	062904-SED-02700-002	N	SW8290	METHOD TOTAL HXCDF		0.767 =	0.767 NG/KG	J		2.43	EBL		
SED	DIOXIN	25104_001	062904-SED-02699-002	N	SW8290	METHOD OCDD		5.54 =	5.54 NG/KG	J		4.45	EBL		
SED	DIOXIN	25104_001	062904-SED-02699-002	N	SW8290	METHOD TOTAL HXCDF		0.552 =	0.552 NG/KG	J		2.22	EBL		
SED	DIOXIN	25108_014	063004-SED-02726-002-D	FD	SW8290	METHOD OCDD		94.1 =B	94.1 NG/KG	J		5	EBL		
SED	DIOXIN	25108_009	063004-SED-02718-002	N	SW8290	METHOD TOTAL TCDF		149 =D	149 NG/KG	J		0.493	EBL		
SED	DIOXIN	25108_008	063004-SED-02717-002	N	SW8290	METHOD OCDD		1150 =B	1150 NG/KG	J		4.93	EBL		
SED	DIOXIN	25108_009	063004-SED-02718-002	N	SW8290	METHOD OCDD		88.8 =B	88.8 NG/KG	J		4.93	EBL		
SED	DIOXIN	25108_012	063004-SED-02725-002	N	SW8290	METHOD TOTAL TCDF		949 =D	949 NG/KG	J		0.499	EBL		
SED	DIOXIN	25108_012	063004-SED-02725-002	N	SW8290	METHOD TOTAL HPCDF		8660 =E	8660 NG/KG	J		2.5	EBL		
SED	DIOXIN	25108_002	063004-SED-02708-002	N	SW8290	METHOD OCDD		109 =	109 NG/KG	J		5	EBL		
SED	DIOXIN	25108_002	063004-SED-02708-002	N	SW8290	METHOD TOTAL TCDF		25.1 =D	25.1 NG/KG	J		0.5	EBL		
SED	DIOXIN	25108_003	063004-SED-02708-002-D	FD	SW8290	METHOD OCDD		101 =B	101 NG/KG	J		5.01	EBL		
SED	DIOXIN	25108_003	063004-SED-02708-002-D	FD	SW8290	METHOD TOTAL TCDF		37.9 =D	37.9 NG/KG	J		0.501	EBL		
SED	DIOXIN	25108_001	063004-SED-02707-002	N	SW8290	METHOD OCDD		196 =B	196 NG/KG	J		5.09	EBL		
SED	DIOXIN	25108_001	063004-SED-02707-002	N	SW8290	METHOD TOTAL TCDF		81.2 =D	81.2 NG/KG	J		0.509	EBL		
SOI	DIOXIN	25032_007	060204-SOI-02698-005	N	SW8290	METHOD TOTAL HXCDF		45.2 =	45.2 NG/KG	J		2.56	FBL		
SOI	DIOXIN	25032_006	060204-SOI-02697-02.5	N	SW8290	METHOD OCDD		3.72 =J	3.72 NG/KG	J		4.92	FBL		
SOI	DIOXIN	25032_009	060204-SOI-02696-00.5	N	SW8290	METHOD OCDD		703 =	703 NG/KG	J		5.06	FBL		
SOI	DIOXIN	25032_009	060204-SOI-02696-00.5	N	SW8290	METHOD 1,2,3,4,7,8-HXCDF		6.02 =	6.02 NG/KG	J		2.53	FBL		
SOI	DIOXIN	25032_008	060204-SOI-02696-02.0	N	SW8290	METHOD TOTAL HXCDF		1.75 =	1.75 NG/KG	J		2.47	FBL		
SOI	DIOXIN	25032_007	060204-SOI-02698-00.5	N	SW8290	METHOD OCDD		598 =	598 NG/KG	J		5.1	FBL		
SOI	DIOXIN	25032_004	060204-SOI-02695-00.5	N	SW8290	METHOD TOTAL HXCDF		18.2 =	18.2 NG/KG	J		2.52	FBL		
SOI	DIOXIN	25032_003	060204-SOI-02697-00.5-D	FD	SW8290	METHOD OCDD		398 =	398 NG/KG	J		5.09	FBL		
SOI	DIOXIN	25032_003	060204-SOI-02697-00.5-D	FD	SW8290	METHOD 1,2,3,4,7,8-HXCDF		2.1 =J	2.1 NG/KG	J		2.54	FBL		
SOI	DIOXIN	25032_010	060204-SOI-02696-04.0	N	SW8290	METHOD OCDD		2.85 =J	2.85 NG/KG	J		5.02	FBL		
SOI	DIOXIN	25032_010	060204-SOI-02696-04.0	N	SW8290	METHOD OCDF		0.359 =J	0.359 NG/KG	J		5.02	FBL		
SOI	DIOXIN	25032_004	060204-SOI-02695-00.5	N	SW8290	METHOD OCDD		358 =	358 NG/KG	J		5.04	FBL		
SOI	DIOXIN	25032_004	060204-SOI-02695-00.5	N	SW8290	METHOD 1,2,3,4,7,8-HXCDF		1.74 =J	1.74 NG/KG	J		2.52	FBL		
SOI	DIOXIN	25032_002	060204-SOI-02697-00.5	N	SW8290	METHOD OCDD		24.2 =	24.2 NG/KG	J		5.04	FBL		
SOI	DIOXIN	25032_002	060204-SOI-02697-00.5	N	SW8290	METHOD OCDF		424 =	424 NG/KG	J		5.03	FBL		
SOI	DIOXIN	25032_002	060204-SOI-02697-00.5	N	SW8290	METHOD 1,2,3,4,7,8-HXCDF		2.32 =J	2.32 NG/KG	J		2.52	FBL		
SOI	DIOXIN	25032_002	060204-SOI-02697-00.5	N	SW8290	METHOD OCDF		28.9 =	28.9 NG/KG	J		5.03	FBL		
SOI	DIOXIN	25027_003	060104-SOI-02687-00.5	N	SW8290	METHOD OCDD		64.1 =	64.1 NG/KG	J		5	FBL		

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SOI	DIOXIN	25027_003	060104-SOI-02687-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.58 =J	0.58	NG/KG	J		2.5	FBL
SOI	DIOXIN	25027_003	060104-SOI-02687-00.5	N	SW8290	METHOD	OCDF	5.34 =	5.34	NG/KG	J		5	FBL
SOI	DIOXIN	25027_012	060104-SOI-02688-02.0	N	SW8290	METHOD	TOTAL HXCDF	0.31 =	0.31	NG/KG	J		2.49	FBL
SOI	DIOXIN	25027_011	060104-SOI-02687-02.0	N	SW8290	METHOD	OCDD	83.6 =	83.6	NG/KG	J		4.96	FBL
SOI	DIOXIN	25027_011	060104-SOI-02687-02.0	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.834 =J	0.834	NG/KG	J		2.49	FBL
SOI	DIOXIN	25027_009	060104-SOI-02688-06.0	N	SW8290	METHOD	OCDD	1.94 =J	1.94	NG/KG	J		5.02	FBL
SOI	DIOXIN	25027_009	060104-SOI-02688-06.0	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.125 =J	0.125	NG/KG	J		2.52	FBL
SOI	DIOXIN	25027_009	060104-SOI-02688-06.0	N	SW8290	METHOD	OCDF	0.316 =J	0.316	NG/KG	J		5.02	FBL
SOI	DIOXIN	25027_009	060104-SOI-02688-06.0	N	SW8290	METHOD	TOTAL HXCDF	0.276 =	0.276	NG/KG	J		2.52	FBL
SOI	DIOXIN	25027_003	060104-SOI-02687-00.5	N	SW8290	METHOD	TOTAL HXCDF	5.09 =	5.09	NG/KG	J		2.5	FBL
SOI	DIOXIN	25027_002	060104-SOI-02690-02.0	N	SW8290	METHOD	OCDD	55.9 =	55.9	NG/KG	J		4.75	FBL
SOI	DIOXIN	25027_002	060104-SOI-02690-02.0	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.801 =J	0.801	NG/KG	J		2.37	FBL
SOI	DIOXIN	25027_014	060104-SOI-02688-04.0	N	SW8290	METHOD	TOTAL HXCDF	0.735 =	0.735	NG/KG	J		2.44	FBL
SOI	DIOXIN	25027_007	060104-SOI-02688-07.0	N	SW8290	METHOD	OCDF	0.269 =J	0.269	NG/KG	J		4.89	FBL
SOI	DIOXIN	25027_007	060104-SOI-02688-07.0	N	SW8290	METHOD	TOTAL HXCDF	0.273 =	0.273	NG/KG	J		2.45	FBL
SOI	DIOXIN	25027_008	060104-SOI-02687-04.5	N	SW8290	METHOD	OCDF	92 =	92	NG/KG	J		4.88	FBL
SOI	DIOXIN	25027_011	060104-SOI-02687-02.0	N	SW8290	METHOD	OCDF	5.53 =	5.53	NG/KG	J		4.96	FBL
SOI	DIOXIN	25027_010	060104-SOI-02690-00.5	N	SW8290	METHOD	TOTAL HXCDF	7.46 =	7.46	NG/KG	J		2.49	FBL
SOI	DIOXIN	25027_010	060104-SOI-02690-00.5	N	SW8290	METHOD	OCDD	25.6 =	25.6	NG/KG	J		5.08	FBL
SOI	DIOXIN	25027_014	060104-SOI-02688-04.0	N	SW8290	METHOD	OCDD	2.15 =J	2.15	NG/KG	J		4.89	FBL
SOI	DIOXIN	25027_014	060104-SOI-02688-04.0	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.193 =J	0.193	NG/KG	J		2.44	FBL
SOI	DIOXIN	25027_013	060104-SOI-02689-00.5	N	SW8290	METHOD	OCDD	155 =	155	NG/KG	J		5.09	FBL
SOI	DIOXIN	25027_013	060104-SOI-02689-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.964 =J	0.964	NG/KG	J		2.54	FBL
SOI	DIOXIN	25027_013	060104-SOI-02689-00.5	N	SW8290	METHOD	OCDF	9.15 =	9.15	NG/KG	J		5.09	FBL
SOI	DIOXIN	25027_004	060104-SOI-02689-02.0	N	SW8290	METHOD	OCDD	2.51 =J	2.51	NG/KG	J		4.95	FBL
SOI	DIOXIN	25027_006	060104-SOI-02689-04.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.13 =J	0.13	NG/KG	J		2.49	FBL
SOI	DIOXIN	25027_006	060104-SOI-02689-04.5	N	SW8290	METHOD	OCDF	0.395 =J	0.395	NG/KG	J		4.96	FBL
SOI	DIOXIN	25027_006	060104-SOI-02689-04.5	N	SW8290	METHOD	TOTAL HXCDF	0.13 =	0.13	NG/KG	J		2.49	FBL
SOI	DIOXIN	25032_009	060204-SOI-02696-00.5	N	SW8290	METHOD	TOTAL HXCDF	45.4 =	45.4	NG/KG	J		2.53	FBL
SOI	DIOXIN	25032_008	060204-SOI-02696-02.0	N	SW8290	METHOD	OCDD	16.9 =	16.9	NG/KG	J		4.93	FBL
SOI	DIOXIN	25032_008	060204-SOI-02696-02.0	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.293 =J	0.293	NG/KG	J		2.47	FBL
SOI	DIOXIN	25032_005	060204-SOI-02695-01.5	N	SW8290	METHOD	OCDD	3.66 =J	3.66	NG/KG	J		5.05	FBL
SOI	DIOXIN	25032_003	060204-SOI-02697-00.5-D	FD	SW8290	METHOD	OCDF	28.1 =	28.1	NG/KG	J		5.09	FBL
SOI	DIOXIN	25032_003	060204-SOI-02697-00.5-D	FD	SW8290	METHOD	TOTAL HXCDF	21.1 =	21.1	NG/KG	J		2.54	FBL
SOI	DIOXIN	25032_009	060204-SOI-02696-00.5	N	SW8290	METHOD	OCDF	62 =	62	NG/KG	J		5.06	FBL
SOI	DIOXIN	25032_005	060204-SOI-02695-01.5	N	SW8290	METHOD	OCDF	0.54 =J	0.54	NG/KG	J		5.05	FBL
SOI	DIOXIN	25032_002	060204-SOI-02697-00.5	N	SW8290	METHOD	TOTAL HXCDF	24.6 =	24.6	NG/KG	J		2.52	FBL
SOI	DIOXIN	25032_007	060204-SOI-02698-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	4 =	4	NG/KG	J		2.56	FBL
SOI	DIOXIN	25032_007	060204-SOI-02698-00.5	N	SW8290	METHOD	OCDF	62.4 =	62.4	NG/KG	J		5.1	FBL
SOI	DIOXIN	25027_008	060104-SOI-02687-04.5	N	SW8290	METHOD	OCDD	1300 =	1300	NG/KG	J		4.88	FBL
SOI	DIOXIN	25027_008	060104-SOI-02687-04.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	2.13 =J	2.13	NG/KG	J		2.43	FBL
SOI	DIOXIN	25027_002	060104-SOI-02690-02.0	N	SW8290	METHOD	OCDF	2.49 =J	2.49	NG/KG	J		4.75	FBL
SOI	DIOXIN	25027_002	060104-SOI-02690-02.0	N	SW8290	METHOD	TOTAL HXCDF	6.22 =	6.22	NG/KG	J		2.37	FBL
SOI	DIOXIN	25027_001	060104-SOI-02687-00.5-D	FD	SW8290	METHOD	OCDD	97.3 =	97.3	NG/KG	J		4.89	FBL
SOI	DIOXIN	25027_008	060104-SOI-02687-04.5	N	SW8290	METHOD	TOTAL HXCDF	39.6 =	39.6	NG/KG	J		2.43	FBL
SOI	DIOXIN	25027_007	060104-SOI-02688-07.0	N	SW8290	METHOD	OCDD	2.07 =J	2.07	NG/KG	J		4.89	FBL
SOI	DIOXIN	25027_007	060104-SOI-02688-07.0	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.127 =J	0.127	NG/KG	J		2.45	FBL
SOI	DIOXIN	25027_013	060104-SOI-02689-00.5	N	SW8290	METHOD	TOTAL HXCDF	8.08 =	8.08	NG/KG	J		2.54	FBL
SOI	DIOXIN	25027_012	060104-SOI-02688-02.0	N	SW8290	METHOD	OCDD	4.24 =J	4.24	NG/KG	J		4.97	FBL
SOI	DIOXIN	25027_012	060104-SOI-02688-02.0	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.164 =J	0.164	NG/KG	J		2.49	FBL
SOI	DIOXIN	25027_012	060104-SOI-02688-02.0	N	SW8290	METHOD	OCDF	0.449 =J	0.449	NG/KG	J		4.97	FBL
SOI	DIOXIN	25027_010	060104-SOI-02690-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.216 =J	0.216	NG/KG	J		2.54	FBL
SOI	DIOXIN	25027_010	060104-SOI-02690-00.5	N	SW8290	METHOD	OCDF	1.87 =J	1.87	NG/KG	J		5.08	FBL
SOI	DIOXIN	25027_010	060104-SOI-02690-00.5	N	SW8290	METHOD	TOTAL HXCDF	1.34 =	1.34	NG/KG	J		2.54	FBL
SOI	DIOXIN	25027_005	060104-SOI-02688-00.5	N	SW8290	METHOD	OCDD	5.51 =	5.51	NG/KG	J		5.14	FBL
SOI	DIOXIN	25027_004	060104-SOI-02689-02.0	N	SW8290	METHOD	TOTAL HXCDF	0.172 =	0.172	NG/KG	J		2.47	FBL
SOI	DIOXIN	25027_006	060104-SOI-02689-04.5	N	SW8290	METHOD	OCDD	4.02 =J	4.02	NG/KG	J		4.96	FBL
SOI	DIOXIN	25027_001	060104-SOI-02687-00.5-D	FD	SW8290	METHOD	1,2,3,4,7,8-HXCDF	0.58 =J	0.58	NG/KG	J		2.44	FBL
SOI	DIOXIN	25027_001	060104-SOI-02687-00.5-D	FD	SW8290	METHOD	OCDF	5.66 =	5.66	NG/KG	J		4.89	FBL
SOI	DIOXIN	25027_005	060104-SOI-02688-00.5	N	SW8290	METHOD	TOTAL HXCDF	0.235 =	0.235	NG/KG	J		2.56	FBL
SOI	DIOXIN	25041_008	060304-SOI-02706-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	361 =B	361	NG/KG	J		2.42	FBL
SOI	DIOXIN	25041_006	060304-SOI-02703-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	341 =B	341	NG/KG	J		2.48	FBL
SOI	DIOXIN	25041_003	060304-SOI-02721-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	132 =B	132	NG/KG	J		2.42	FBL
SOI	DIOXIN	25041_001	060304-SOI-02719-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCDF	226 =B	226	NG/KG	J		2.49	FBL
SED	DIOXIN	25103_004	062804-SED-02694-00.2	N	SW8290	METHOD	OCDF	0.795 U	0.795	NG/KG	UJ		5.07	ISL
SED	DIOXIN	25103_003	062804-SED-02693-00.2	N	SW8290	METHOD	OCDF	1.79 U	1.79	NG/KG	UJ		5.08	ISL
SED	DIOXIN	25103_001	062804-SED-02691-00.2	N	SW8290	METHOD	OCDF	0.573 U	0.573	NG/KG	UJ		4.62	ISL

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SED	DIOXIN	25103_002	062804-SED-02692-00.2	N	SW8290	METHOD	OCDF	0.495	=J	0.495	NG/KG	J	4.83	ISL
SED	DIOXIN	25104_008	062904-SED-02734-00.2	N	SW8290	METHOD	1,2,3,4,7,8,9-HPCDF	0.66	=J	0.66	NG/KG	J	2.42	ISL
SED	DIOXIN	25104_008	062904-SED-02734-00.2	N	SW8290	METHOD	OCDF	12.5	=	12.5	NG/KG	J	4.85	ISL
SOI	DIOXIN	25040_007	060404-SOI-02728-00.5	N	SW8290	METHOD	OCDD	14600	=BE	14600	NG/KG	J	4.78	LR
SOI	DIOXIN	25040_007	060404-SOI-02728-00.5	N	SW8290	METHOD	2,3,7-TCDF	4960	=BE	4960	NG/KG	J	0.478	LR
SOI	DIOXIN	25040_007	060404-SOI-02728-00.5	N	SW8290	METHOD	1,2,3,7,8-PECDF	2440	=E	2440	NG/KG	J	2.4	LR
SOI	DIOXIN	25040_007	060404-SOI-02728-00.5	N	SW8290	METHOD	2,3,4,7,8-PECDF	2300	=E	2300	NG/KG	J	2.4	LR
SOI	DIOXIN	25040_002	060404-SOI-02711-00.5	N	SW8290	METHOD	OCDD	13700	=BE	13700	NG/KG	J	5.04	LR
SOI	DIOXIN	25040_002	060404-SOI-02711-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	3810	=BE	3810	NG/KG	J	0.504	LR
SOI	DIOXIN	25040_002	060404-SOI-02711-00.5	N	SW8290	METHOD	1,2,3,7,8-PECDF	2070	=E	2070	NG/KG	J	2.52	LR
SOI	DIOXIN	25040_002	060404-SOI-02711-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	2110	=BE	2110	NG/KG	J	2.52	LR
SOI	DIOXIN	25040_002	060404-SOI-02711-00.5	N	SW8290	METHOD	TOTAL TCDF	9030	=BDE	9030	NG/KG	J	0.504	LR
SOI	DIOXIN	25040_002	060404-SOI-02711-00.5	N	SW8290	METHOD	TOTAL PECDF	7210	=DE	7210	NG/KG	J	2.52	LR
SOI	DIOXIN	25040_002	060404-SOI-02711-00.5	N	SW8290	METHOD	TOTAL HPCDF	5040	=BE	5040	NG/KG	J	2.52	LR
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	1,2,3,7,8-PECDF	3750	=E	3750	NG/KG	J	2.38	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	TOTAL HPCDD	6330	=BE	6330	NG/KG	J	2.46	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	TOTAL TCDF	22400	=BDE	22400	NG/KG	J	0.492	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	TOTAL PECDF	17400	=DE	17400	NG/KG	J	2.46	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	TOTAL HXCFD	9990	=BDE	9990	NG/KG	J	2.46	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	TOTAL HPCDF	17700	=BE	17700	NG/KG	J	2.46	LR
SOI	DIOXIN	25040_005	060404-SOI-02714-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDD	3940	=E	3940	NG/KG	J	2.42	LR
SOI	DIOXIN	25040_005	060404-SOI-02714-00.5	N	SW8290	METHOD	OCDD	41100	=BE	41100	NG/KG	J	4.84	LR
SOI	DIOXIN	25040_005	060404-SOI-02714-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	2740	=BE	2740	NG/KG	J	0.484	LR
SOI	DIOXIN	25040_010	060404-SOI-02730-00.5-D	FD	SW8290	METHOD	1,2,3,4,6,7,8-HPCDD	2990	=E	2990	NG/KG	J	2.5	LR
SOI	DIOXIN	25040_010	060404-SOI-02730-00.5-D	FD	SW8290	METHOD	OCDD	30600	=BE	30600	NG/KG	J	4.99	LR
SOI	DIOXIN	25040_010	060404-SOI-02730-00.5-D	FD	SW8290	METHOD	2,3,7,8-TCDF	4170	=BE	4170	NG/KG	J	0.499	LR
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	2,3,4,7,8-PECDF	4440	=E	4440	NG/KG	J	2.38	LR
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCFD	2800	=BE	2800	NG/KG	J	2.38	LR
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	3560	=BE	3560	NG/KG	J	2.38	LR
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	OCDF	6830	=BE	6830	NG/KG	J	4.77	LR
SOI	DIOXIN	25040_005	060404-SOI-02714-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	4080	=BE	4080	NG/KG	J	2.42	LR
SOI	DIOXIN	25040_005	060404-SOI-02714-00.5	N	SW8290	METHOD	OCDF	10900	=BE	10900	NG/KG	J	4.84	LR
SOI	DIOXIN	25040_005	060404-SOI-02714-00.5	N	SW8290	METHOD	TOTAL HPCDD	6750	=BE	6750	NG/KG	J	2.42	LR
SOI	DIOXIN	25040_005	060404-SOI-02714-00.5	N	SW8290	METHOD	TOTAL TCDF	7480	=BDE	7480	NG/KG	J	0.484	LR
SOI	DIOXIN	25040_005	060404-SOI-02714-00.5	N	SW8290	METHOD	TOTAL HPCDF	12100	=BE	12100	NG/KG	J	2.42	LR
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	TOTAL PECDF	17100	=DE	17100	NG/KG	J	2.38	LR
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	TOTAL HXCFD	6970	=BDE	6970	NG/KG	J	2.38	LR
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	TOTAL HPCDF	8740	=BE	8740	NG/KG	J	2.38	LR
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDD	4830	=E	4830	NG/KG	J	2.51	LR
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	OCDD	51400	=BE	51400	NG/KG	J	5.02	LR
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	4300	=BE	4300	NG/KG	J	0.502	LR
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	1,2,3,7,8-PECDF	2180	=E	2180	NG/KG	J	2.51	LR
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	2,3,4,7,8-PECDF	2100	=E	2100	NG/KG	J	2.51	LR
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	8550	=BE	8550	NG/KG	J	2.51	LR
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	OCDF	15800	=BE	15800	NG/KG	J	5.02	LR
SOI	DIOXIN	25040_010	060404-SOI-02730-00.5-D	FD	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	4240	=BE	4240	NG/KG	J	2.5	LR
SOI	DIOXIN	25040_010	060404-SOI-02730-00.5-D	FD	SW8290	METHOD	OCDF	8620	=BE	8620	NG/KG	J	4.99	LR
SOI	DIOXIN	25040_010	060404-SOI-02730-00.5-D	FD	SW8290	METHOD	TOTAL HPCDD	5080	=BE	5080	NG/KG	J	2.5	LR
SOI	DIOXIN	25040_010	060404-SOI-02730-00.5-D	FD	SW8290	METHOD	TOTAL TCDF	11000	=BDE	11000	NG/KG	J	0.499	LR
SOI	DIOXIN	25040_010	060404-SOI-02730-00.5-D	FD	SW8290	METHOD	TOTAL HPCDF	10700	=BE	10700	NG/KG	J	2.5	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDD	3660	=E	3660	NG/KG	J	2.46	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	OCDD	39300	=BE	39300	NG/KG	J	4.92	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	9180	=BE	9180	NG/KG	J	0.492	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	1,2,3,7,8-PECDF	4650	=E	4650	NG/KG	J	2.46	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	2,3,4,7,8-PECDF	4390	=E	4390	NG/KG	J	2.46	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCFD	3700	=BE	3700	NG/KG	J	2.46	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	8430	=BE	8430	NG/KG	J	2.46	LR
SOI	DIOXIN	25040_006	060404-SOI-02727-00.5	N	SW8290	METHOD	OCDF	12100	=BE	12100	NG/KG	J	4.92	LR
SOI	DIOXIN	25040_003	060404-SOI-02712-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	1980	=BE	1980	NG/KG	J	2.4	LR
SOI	DIOXIN	25040_003	060404-SOI-02712-00.5	N	SW8290	METHOD	TOTAL HPCDF	4230	=BE	4230	NG/KG	J	2.4	LR
SOI	DIOXIN	25040_004	060404-SOI-02713-00.5	N	SW8290	METHOD	OCDD	12100	=BE	12100	NG/KG	J	5.02	LR
SOI	DIOXIN	25040_004	060404-SOI-02713-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	9350	=BE	9350	NG/KG	J	0.502	LR
SOI	DIOXIN	25040_004	060404-SOI-02713-00.5	N	SW8290	METHOD	1,2,3,7,8-PECDF	4770	=E	4770	NG/KG	J	2.51	LR
SOI	DIOXIN	25040_004	060404-SOI-02713-00.5	N	SW8290	METHOD	2,3,4,7,8-PECDF	4210	=E	4210	NG/KG	J	2.51	LR
SOI	DIOXIN	25040_004	060404-SOI-02713-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCFD	3260	=BE	3260	NG/KG	J	2.51	LR
SOI	DIOXIN	25040_004	060404-SOI-02713-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	2110	=BE	2110	NG/KG	J	2.51	LR
SOI	DIOXIN	25040_004	060404-SOI-02713-00.5	N	SW8290	METHOD	TOTAL TCDF	22000	=BDE	22000	NG/KG	J	0.502	LR
SOI	DIOXIN	25040_004	060404-SOI-02713-00.5	N	SW8290	METHOD	TOTAL PECDF	16200	=DE	16200	NG/KG	J	2.51	LR

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT		VALIDATION REASON CODES
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	TOTAL HPCDD	8350	=BE	8350	NG/KG	J	2.51	LR	
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	TOTAL TCDF	11500	=BDE	11500	NG/KG	J	0.502	LR	
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	TOTAL PECDF	8870	=DE	8870	NG/KG	J	2.51	LR	
SOI	DIOXIN	25040_008	060404-SOI-02729-00.5	N	SW8290	METHOD	TOTAL HPCDF	20400	=BE	20400	NG/KG	J	2.51	LR	
SOI	DIOXIN	25040_003	060404-SOI-02712-00.5	N	SW8290	METHOD	TOTAL TCDF	7930	=BDE	7930	NG/KG	J	0.479	LR	
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	TOTAL HPCDD	4260	=BE	4260	NG/KG	J	2.38	LR	
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	TOTAL TCDF	27200	=BDE	27200	NG/KG	J	0.477	LR	
SOI	DIOXIN	25040_007	060404-SOI-02728-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	3770	=BE	3770	NG/KG	J	2.4	LR	
SOI	DIOXIN	25040_007	060404-SOI-02728-00.5	N	SW8290	METHOD	OCDF	4880	=BE	4880	NG/KG	J	4.78	LR	
SOI	DIOXIN	25040_007	060404-SOI-02728-00.5	N	SW8290	METHOD	TOTAL TCDF	11400	=BDE	11400	NG/KG	J	0.478	LR	
SOI	DIOXIN	25040_007	060404-SOI-02728-00.5	N	SW8290	METHOD	TOTAL PECDF	8960	=DE	8960	NG/KG	J	2.4	LR	
SOI	DIOXIN	25040_007	060404-SOI-02728-00.5	N	SW8290	METHOD	TOTAL HPCDF	7290	=BE	7290	NG/KG	J	2.4	LR	
SOI	DIOXIN	25040_004	060404-SOI-02713-00.5	N	SW8290	METHOD	TOTAL HXCFD	6680	=BDE	6680	NG/KG	J	2.51	LR	
SOI	DIOXIN	25040_004	060404-SOI-02713-00.5	N	SW8290	METHOD	TOTAL HPCDF	4620	=BE	4620	NG/KG	J	2.51	LR	
SOI	DIOXIN	25040_003	060404-SOI-02712-00.5	N	SW8290	METHOD	OCDD	12000	=BE	12000	NG/KG	J	4.79	LR	
SOI	DIOXIN	25040_003	060404-SOI-02712-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	3400	=BE	3400	NG/KG	J	0.479	LR	
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDD	2480	=E	2480	NG/KG	J	2.38	LR	
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	OCDD	26000	=BE	26000	NG/KG	J	4.77	LR	
SOI	DIOXIN	25040_009	060404-SOI-02730-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	10300	=BE	10300	NG/KG	J	0.477	LR	
SED	DIOXIN	25108_012	063004-SED-02725-00.2	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDD	2080	=E	2080	NG/KG	J	2.5	LR	
SED	DIOXIN	25108_012	063004-SED-02725-00.2	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	2180	=E	2180	NG/KG	J	2.5	LR	
SED	DIOXIN	25108_005	063004-SED-02710-00.2	N	SW8290	METHOD	OCDD	11200	=BE	11200	NG/KG	J	4.88	LR	
SED	DIOXIN	25108_005	063004-SED-02710-00.2	N	SW8290	METHOD	OCDF	4090	=E	4090	NG/KG	J	4.88	LR	
SOI	DIOXIN	25041_009	060304-SOI-02704-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDD	5350	=BE	5350	NG/KG	J	2.46	LR	
SOI	DIOXIN	25041_009	060304-SOI-02704-00.5	N	SW8290	METHOD	OCDD	59300	=BE	59300	NG/KG	J	4.91	LR	
SOI	DIOXIN	25041_009DL	060304-SOI-02704-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	12200	=E	12200	NG/KG	J	4.91	LR	
SOI	DIOXIN	25041_009	060304-SOI-02704-00.5	N	SW8290	METHOD	1,2,3,7,8-PECDF	2040	=BE	2040	NG/KG	J	2.46	LR	
SOI	DIOXIN	25041_009	060304-SOI-02704-00.5	N	SW8290	METHOD	2,3,4,7,8-PECDF	2940	=BE	2940	NG/KG	J	2.46	LR	
SOI	DIOXIN	25041_009	060304-SOI-02704-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	4250	=BDE	4250	NG/KG	J	2.46	LR	
SOI	DIOXIN	25041_009	060304-SOI-02704-00.5	N	SW8290	METHOD	OCDF	16100	=BE	16100	NG/KG	J	4.91	LR	
SOI	DIOXIN	25041_008	060304-SOI-02706-00.5	N	SW8290	METHOD	OCDD	12600	=BE	12600	NG/KG	J	4.83	LR	
SOI	DIOXIN	25041_008	060304-SOI-02706-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	1200	=E	1200	NG/KG	J	0.483	LR	
SOI	DIOXIN	25041_007	060304-SOI-02705-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDD	5730	=BE	5730	NG/KG	J	2.39	LR	
SOI	DIOXIN	25041_007	060304-SOI-02705-00.5	N	SW8290	METHOD	OCDD	61400	=BE	61400	NG/KG	J	4.77	LR	
SOI	DIOXIN	25041_007	060304-SOI-02705-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	4970	=E	4970	NG/KG	J	0.477	LR	
SOI	DIOXIN	25041_007	060304-SOI-02705-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	6270	=BDE	6270	NG/KG	J	2.39	LR	
SOI	DIOXIN	25041_007	060304-SOI-02705-00.5	N	SW8290	METHOD	OCDF	16500	=BE	16500	NG/KG	J	4.77	LR	
SOI	DIOXIN	25041_006	060304-SOI-02703-00.5	N	SW8290	METHOD	OCDD	14900	=BE	14900	NG/KG	J	4.97	LR	
SOI	DIOXIN	25041_006	060304-SOI-02703-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	547	=E	547	NG/KG	J	0.497	LR	
SOI	DIOXIN	25041_006	060304-SOI-02703-00.5	N	SW8290	METHOD	OCDF	4400	=BE	4400	NG/KG	J	4.97	LR	
SOI	DIOXIN	25041_004	060304-SOI-02722-00.5	N	SW8290	METHOD	OCDD	10800	=BE	10800	NG/KG	J	5.04	LR	
SOI	DIOXIN	25041_004	060304-SOI-02722-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	8040	=E	8040	NG/KG	J	0.504	LR	
SOI	DIOXIN	25041_004	060304-SOI-02722-00.5	N	SW8290	METHOD	1,2,3,7,8-PECDF	3460	=BE	3460	NG/KG	J	2.51	LR	
SOI	DIOXIN	25041_004	060304-SOI-02722-00.5	N	SW8290	METHOD	2,3,4,7,8-PECDF	3440	=BE	3440	NG/KG	J	2.51	LR	
SOI	DIOXIN	25041_004	060304-SOI-02722-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCFD	2390	=BDE	2390	NG/KG	J	2.51	LR	
SOI	DIOXIN	25041_004	060304-SOI-02722-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	2620	=BE	2620	NG/KG	J	2.51	LR	
SOI	DIOXIN	25041_003	060304-SOI-02721-00.5	N	SW8290	METHOD	OCDD	6630	=BE	6630	NG/KG	J	4.85	LR	
SOI	DIOXIN	25041_002	060304-SOI-02720-00.5	N	SW8290	METHOD	OCDD	12400	=BE	12400	NG/KG	J	4.93	LR	
SOI	DIOXIN	25041_002DL	060304-SOI-02720-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	22900	=E	22900	NG/KG	J	9.86	LR	
SOI	DIOXIN	25041_002DL	060304-SOI-02720-00.5	N	SW8290	METHOD	1,2,3,7,8-PECDF	10200	=BE*	10200	NG/KG	J	49.3	LR	
SOI	DIOXIN	25041_002DL	060304-SOI-02720-00.5	N	SW8290	METHOD	2,3,4,7,8-PECDF	10100	=BE*	10100	NG/KG	J	49.3	LR	
SOI	DIOXIN	25041_002	060304-SOI-02720-00.5	N	SW8290	METHOD	1,2,3,4,7,8-HXCFD	6330	=BDE	6330	NG/KG	J	2.47	LR	
SOI	DIOXIN	25041_002	060304-SOI-02720-00.5	N	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	3330	=BE	3330	NG/KG	J	2.47	LR	
SOI	DIOXIN	25041_002	060304-SOI-02720-00.5	N	SW8290	METHOD	TOTAL HXCFD	12600	=BDE	12600	NG/KG	J	2.47	LR	
SOI	DIOXIN	25041_002	060304-SOI-02720-00.5	N	SW8290	METHOD	TOTAL HPCDF	6490	=BE	6490	NG/KG	J	2.47	LR	
SOI	DIOXIN	25041_001	060304-SOI-02719-00.5	N	SW8290	METHOD	OCDD	5740	=BE	5740	NG/KG	J	4.97	LR	
SOI	DIOXIN	25041_001	060304-SOI-02719-00.5	N	SW8290	METHOD	2,3,7,8-TCDF	576	=E	576	NG/KG	J	0.497	LR	
SOI	DIOXIN	25041_010	060304-SOI-02704-00.5-D	FD	SW8290	METHOD	1,2,3,4,6,7,8-HPCDD	2830	=E	2830	NG/KG	J	2.5	LR	
SOI	DIOXIN	25041_010	060304-SOI-02704-00.5-D	FD	SW8290	METHOD	OCDD	26300	=E	26300	NG/KG	J	5.01	LR	
SOI	DIOXIN	25041_010	060304-SOI-02704-00.5-D	FD	SW8290	METHOD	2,3,7,8-TCDF	441	=E	441	NG/KG	J	0.501	LR	
SOI	DIOXIN	25041_010	060304-SOI-02704-00.5-D	FD	SW8290	METHOD	1,2,3,4,6,7,8-HPCDF	2840	=DE	2840	NG/KG	J	2.5	LR	
SOI	DIOXIN	25041_010	060304-SOI-02704-00.5-D	FD	SW8290	METHOD	OCDF	7940	=DE	7940	NG/KG	J	5.01	LR	
SED	DIOXIN	25108_012	063004-SED-02725-00.2	N	SW8290	METHOD	OCDF	7520	=E	7520	NG/KG	J	4.99	LR	
SED	DIOXIN	25108_012	063004-SED-02725-00.2	N	SW8290	METHOD	TOTAL HPCDD	3380	=E	3380	NG/KG	J	2.5	LR	
SED	DIOXIN	25108_012	063004-SED-02724-00.2	N	SW8290	METHOD	OCDD	20700	=BE	20700	NG/KG	J	4.99	LR,ISH	
SED	DIOXIN	25108_011DL	063004-SED-02724-00.2	N	SW8290	METHOD	OCDD	150000	=BE*	150000	NG/KG	J	49.8	LR,ISH	
SED	DIOXIN	25108_011DL	063004-SED-02724-00.2	N	SW8290	METHOD	OCDF	102000	=E	102000	NG/KG	J	49.8	LR,ISH	
SO	HERB	20406042501	060204-SOI-02695-00.5	N	SW8270C	SW3510C	Dinoceb	425	U	425	UG/KG	UJ	425	ICRSD	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	HERB	20406042502	060204-SOI-02696-00.5	N	SW8270C	SW3510C	Dinoseb	463 U	463	UG/KG	UJ		463	ICRSD
SO	HERB	20406042503	060204-SOI-02697-00.5	N	SW8270C	SW3510C	Dinoseb	446 U	446	UG/KG	UJ		446	ICRSD
SO	HERB	20406042504	060204-SOI-02697-00.5-D	FD	SW8270C	SW3510C	Dinoseb	451 U	451	UG/KG	UJ		451	ICRSD
SO	HERB	20406042505	060204-SOI-02698-00.5	N	SW8270C	SW3510C	Dinoseb	442 U	442	UG/KG	UJ		442	ICRSD
SO	HERB	20406042507	060204-SOI-02695-01.5	N	SW8270C	SW3510C	Dinoseb	388 U	388	UG/KG	UJ		388	ICRSD
SO	HERB	20406042508	060204-SOI-02696-04.0	N	SW8270C	SW3510C	Dinoseb	412 U	412	UG/KG	UJ		412	ICRSD
SO	HERB	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	Dinoseb	383 U	383	UG/KG	UJ		383	ICRSD
SO	HERB	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	Dinoseb	445 U	445	UG/KG	UJ		445	ICRSD
SED	HERB	20407020801	063004-SED-02707-00.2	N	SW8270C	SW3510C	Dinoseb	391 U	391	UG/KG	UJ		391	ICRSD
SED	HERB	20407020802	063004-SED-02708-00.2	N	SW8270C	SW3510C	Dinoseb	416 U	416	UG/KG	UJ		416	ICRSD
SED	HERB	20407020803	063004-SED-02708-00.2-D	FD	SW8270C	SW3510C	Dinoseb	416 U	416	UG/KG	UJ		416	ICRSD
SED	HERB	20407020806	063004-SED-02709-00.2	N	SW8270C	SW3510C	Dinoseb	388 U	388	UG/KG	UJ		388	ICRSD
SED	HERB	20407020807	063004-SED-02710-00.2	N	SW8270C	SW3510C	Dinoseb	377 U	377	UG/KG	UJ		377	ICRSD
SED	HERB	20407020808	063004-SED-02715-00.2	N	SW8270C	SW3510C	Dinoseb	423 U	423	UG/KG	UJ		423	ICRSD
SED	HERB	20407020809	063004-SED-02716-00.2	N	SW8270C	SW3510C	Dinoseb	378 U	378	UG/KG	UJ		378	ICRSD
SED	HERB	20407020810	063004-SED-02717-00.2	N	SW8270C	SW3510C	Dinoseb	423 U	423	UG/KG	UJ		423	ICRSD
SED	HERB	20407020811	063004-SED-02718-00.2	N	SW8270C	SW3510C	Dinoseb	405 U	405	UG/KG	UJ		405	ICRSD
SED	HERB	20407020812	063004-SED-02723-00.2	N	SW8270C	SW3510C	Dinoseb	391 U	391	UG/KG	UJ		391	ICRSD
SED	HERB	20407020813	063004-SED-02724-00.2	N	SW8270C	SW3510C	Dinoseb	374 U	374	UG/KG	UJ		374	ICRSD
SED	HERB	20407020814	063004-SED-02725-00.2	N	SW8270C	SW3510C	Dinoseb	410 U	410	UG/KG	UJ		410	ICRSD
SED	HERB	20407020815	063004-SED-02726-00.2	N	SW8270C	SW3510C	Dinoseb	398 U	398	UG/KG	UJ		398	ICRSD
SED	HERB	20407020816	063004-SED-02726-00.2-D	FD	SW8270C	SW3510C	Dinoseb	400 U	400	UG/KG	UJ		400	ICRSD
SO	HERB	20406042504	060204-SOI-02697-00.5-D	FD	SW8151A	SW3510C	24.5-T	23.2 U	23.2	UG/KG	UJ		23.2	SSL
SO	HERB	20406042504	060204-SOI-02697-00.5-D	FD	SW8151A	SW3510C	24.5-TP (Silvex)	23.2 U	23.2	UG/KG	UJ		23.2	SSL
SO	HERB	20406042505	060204-SOI-02695-01.5	N	SW8151A	SW3510C	24.5-T	23.2 U	23.2	UG/KG	UJ		23.2	SSL
SO	HERB	20406042507	060204-SOI-02695-01.5	N	SW8151A	SW3510C	24.5-TP (Silvex)	20 U	20	UG/KG	UJ		20	SSL
SO	HERB	20406042507	060204-SOI-02695-01.5	N	SW8151A	SW3510C	24.5-T	20 U	20	UG/KG	UJ		20	SSL
SED	METAL	20406302314	062904-SED-02734-00.2	N	SW6010B	SW3050B	ARSENIC	930 B	0.93	MG/KG	U		1170	CCBL
SED	METAL	20406302314	062904-SED-02734-00.2	N	SW6010B	SW3050B	BERYLLIUM	35.9 B	0.0359	MG/KG	U		234	CCBL
SED	METAL	20406302315	062904-SED-02734-00.2-D	FD	SW6010B	SW3050B	ARSENIC	856 B	0.856	MG/KG	U		1170	CCBL
SED	METAL	20406302315	062904-SED-02734-00.2-D	FD	SW6010B	SW3050B	BERYLLIUM	39.7 B	0.0397	MG/KG	U		233	CCBL
SED	METAL	20406302309	062904-SED-02731-00.2	N	SW6010B	SW3050B	ARSENIC	630 B	0.63	MG/KG	U		1200	CCBL
SED	METAL	20406302309	062904-SED-02731-00.2	N	SW6010B	SW3050B	BERYLLIUM	25.9 B	0.0259	MG/KG	U		239	CCBL
SED	METAL	20406302307	062904-SED-02701-00.2	N	SW6010B	SW3050B	ARSENIC	950 B	0.95	MG/KG	U		1220	CCBL
SED	METAL	20406302306	062904-SED-02700-00.2	N	SW6010B	SW3050B	THALLIUM	1460 =	1460	UG/KG	U		900	CCBL
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	THALLIUM	1420 =	1420	UG/KG	U		1120	CCBL
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	THALLIUM	1800 =	1800	UG/KG	U		1080	CCBL
SOI	METAL	20406050906	060304-SOI-02719-00.5	N	SW6010B	SW3050B	THALLIUM	975 B	975	UG/KG	U		1020	CCBL
SOI	METAL	20406050910	060304-SOI-02721-00.5	N	SW6010B	SW3050B	THALLIUM	937 B	937	UG/KG	U		1050	CCBL
SOI	METAL	20406050912	060404-SOI-02711-00.5	N	SW6010B	SW3050B	THALLIUM	930 B	930	UG/KG	U		1130	CCBL
SOI	METAL	20406050914	060404-SOI-02713-00.5	N	SW6010B	SW3050B	THALLIUM	870 B	870	UG/KG	U		1180	CCBL
SOI	METAL	20406050916	060404-SOI-02727-00.5	N	SW6010B	SW3050B	THALLIUM	1390 =	1390	UG/KG	U		1080	CCBL
SOI	METAL	20406050918	060404-SOI-02729-00.5	N	SW6010B	SW3050B	THALLIUM	1280 =	1280	UG/KG	U		1130	CCBL
SOI	METAL	20406050920	060404-SOI-02730-00.5-D	FD	SW6010B	SW3050B	THALLIUM	989 B	989	UG/KG	U		1030	CCBL
SED	METAL	20407020814RE	063004-SED-02725-00.2	N	SW6010B	SW3050B	Arsenic	1220 B	1.22	MG/KG	U		1230	CCBL
SED	METAL	20407020802RE	063004-SED-02708-00.2	N	SW6010B	SW3050B	Arsenic	591 B	0.591	MG/KG	U		1260	CCBL
SED	METAL	20407020803RE	063004-SED-02708-00.2-D	FD	SW6010B	SW3050B	Arsenic	480 B	0.48	MG/KG	J		1260	CCBL
SED	METAL	20407020808RE	063004-SED-02715-00.2	N	SW6010B	SW3050B	Arsenic	1050 B	1.05	MG/KG	U		1270	CCBL
SED	METAL	20407020807RE	063004-SED-02710-00.2	N	SW6010B	SW3050B	Arsenic	1570 =	1.57	MG/KG	U		1130	CCBL
SED	METAL	20407020811RE	063004-SED-02718-00.2	N	SW6010B	SW3050B	Arsenic	843 B	0.843	MG/KG	U		1230	CCBL
SED	METAL	20407020809RE	063004-SED-02716-00.2	N	SW6010B	SW3050B	Arsenic	1450 =	1.45	MG/KG	U		1140	CCBL
SED	METAL	20406302304	062804-SED-02694-00.2	N	SW6010B	SW3050B	THALLIUM	1170 B	1170	UG/KG	U		1760	CCBL, EBL
SOI	METAL	20406050915	060404-SOI-02714-00.5	N	SW6010B	SW3050B	THALLIUM	764 B	764	UG/KG	U		1080	CCBL, EBL
SED	METAL	20406302315	062904-SED-02734-00.2-D	FD	SW6010B	SW3050B	CADMIUM	61.3 B	0.0613	MG/KG	U		233	CCBL, LBL
SED	METAL	20406302313	062904-SED-02733-00.2	N	SW6010B	SW3050B	ANTIMONY	287 B	0.287	MG/KG	U		2420	CCBL, LBL
SED	METAL	20406302302	062804-SED-02692-00.2	N	SW6010B	SW3050B	ANTIMONY	227 B	0.227	MG/KG	U		2450	CCBL, LBL
SED	METAL	20406302302	062804-SED-02692-00.2	N	SW6010B	SW3050B	CADMIUM	55.5 B	0.0555	MG/KG	U		245	CCBL, LBL
SED	METAL	20406302309	062904-SED-02731-00.2	N	SW6010B	SW3050B	CADMIUM	49.7 B	0.0497	MG/KG	U		239	CCBL, LBL
SED	METAL	20406302301	062804-SED-02691-00.2	N	SW6010B	SW3050B	ANTIMONY	266 B	0.266	MG/KG	U		2340	CCBL, LBL
SOI	METAL	20406042501	060204-SOI-02695-0.5	N	SW6010B	SW3050B	THALLIUM	259 B	259	UG/KG	U		1030	CCBL, LBL
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	THALLIUM	762 B	762	UG/KG	U		1000	CCBL, LBL
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	THALLIUM	369 B	369	UG/KG	U		1070	CCBL, LBL
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	THALLIUM	200 B	200	UG/KG	U		1070	CCBL, LBL
SOI	METAL	20406042504	060204-SOI-02697-00.5-D	FD	SW6010B	SW3050B	THALLIUM	658 B	658	UG/KG	U		1090	CCBL, LBL
SED	METAL	20406302314	062904-SED-02734-00.2	N	SW6010B	SW3050B	THALLIUM	234 B	234	UG/KG	U		937	CCBL, LBL, EBL
SED	METAL	20406302303	062804-SED-02693-00.2	N	SW6010B	SW3050B	THALLIUM	890 B	890	UG/KG	U		948	CCBL, LBL, EBL
SED	METAL	20406302313	062904-SED-02733-00.2	N	SW6010B	SW3050B	THALLIUM	751 B	751	UG/KG	U		967	CCBL, LBL, EBL

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SED	METAL	20406302301	062804-SED-02691-00.2	N	SW6010B	SW3050B	THALLIUM	399	B	399	UG/KG	U	936	CCBL,LBL,EGL
SED	METAL	20406302308	062904-SED-02702-00.2	N	SW6010B	SW3050B	THALLIUM	910	=	910	UG/KG	U	879	CCBL,LBL,EGL
SED	METAL	20406302307	062904-SED-02701-00.2	N	SW6010B	SW3050B	THALLIUM	850	B	850	UG/KG	U	976	CCBL,LBL,EGL
SED	METAL	20406302305	062904-SED-02699-00.2	N	SW6010B	SW3050B	THALLIUM	386	B	386	UG/KG	U	903	CCBL,LBL,EGL
SOI	METAL	20406050913	060404-SOI-02712-00.5	N	SW6010B	SW3050B	THALLIUM	775	B	775	UG/KG	U	1000	CCBL,EGL
SOI	METAL	20406050919	060404-SOI-02730-00.5	N	SW6010B	SW3050B	THALLIUM	806	B	806	UG/KG	U	1040	CCBL,EGL
SED	METAL	20407020815RE	063004-SED-02726-00.2	N	SW6010B	SW3050B	Thallium	356	B	356	UG/KG	U	958	CCBL,EGL
SED	METAL	20407020814RE	063004-SED-02725-00.2	N	SW6010B	SW3050B	Thallium	259	B	259	UG/KG	U	986	CCBL,EGL
SED	METAL	20407020816RE	063004-SED-02726-00.2-D	FD	SW6010B	SW3050B	Thallium	526	B	526	UG/KG	U	970	CCBL,EGL
SED	METAL	20407020812RE	063004-SED-02723-00.2	N	SW6010B	SW3050B	Thallium	336	B	336	UG/KG	U	949	CCBL,EGL
SED	METAL	20407020803RE	063004-SED-02708-00.2-D	FD	SW6010B	SW3050B	Cadmium	36.7	B	0.0367	MG/KG	U	252	CCBL,LBL
SED	METAL	20407020801RE	063004-SED-02707-00.2	N	SW6010B	SW3050B	Cadmium	76.1	B	0.0761	MG/KG	U	235	CCBL,LBL
SED	METAL	20407020814RE	063004-SED-02725-00.2	N	SW6010B	SW3050B	Cadmium	86.4	B	0.0864	MG/KG	U	247	CCBL,LBL
SED	METAL	20407020802RE	063004-SED-02708-00.2	N	SW6010B	SW3050B	Cadmium	47.9	B	0.0479	MG/KG	U	252	CCBL,LBL
SED	METAL	20407020806RE	063004-SED-02709-00.2	N	SW6010B	SW3050B	Cadmium	73.6	B	0.0736	MG/KG	U	235	CCBL,LBL
SED	METAL	20407020807RE	063004-SED-02710-00.2	N	SW6010B	SW3050B	Cadmium	108	B	0.108	MG/KG	U	227	CCBL,LBL
SED	METAL	20407020812RE	063004-SED-02723-00.2	N	SW6010B	SW3050B	Cadmium	95.1	B	0.0951	MG/KG	U	237	CCBL,LBL
SED	METAL	20407020815RE	063004-SED-02726-00.2	N	SW6010B	SW3050B	Cadmium	119	B	0.119	MG/KG	U	240	CCBL,LBL
SED	METAL	20407020813RE	063004-SED-02724-00.2	N	SW6010B	SW3050B	Cadmium	158	B	0.158	MG/KG	U	227	CCBL,LBL
SED	METAL	20407020810RE	063004-SED-02717-00.2	N	SW6010B	SW3050B	Cadmium	92.2	B	0.0922	MG/KG	U	256	CCBL,LBL
SED	METAL	20407020809RE	063004-SED-02716-00.2	N	SW6010B	SW3050B	Cadmium	98.1	B	0.0981	MG/KG	U	227	CCBL,LBL
SED	METAL	20407020811RE	063004-SED-02718-00.2	N	SW6010B	SW3050B	Cadmium	67.1	B	0.0671	MG/KG	U	245	CCBL,LBL
SED	METAL	20407020808RE	063004-SED-02715-00.2	N	SW6010B	SW3050B	Cadmium	45.5	B	0.0455	MG/KG	U	255	CCBL,LBL
SED	METAL	20407020816RE	063004-SED-02726-00.2-D	FD	SW6010B	SW3050B	Cadmium	137	B	0.137	MG/KG	U	243	CCBL,LBL
SOI	METAL	20406050901	060304-SOI-02703-00.5	N	SW6010B	SW3050B	THALLIUM	223	B	223	UG/KG	U	933	CCBL,LBL,EGL
SOI	METAL	20406050904	060304-SOI-02704-00.5	N	SW6010B	SW3050B	THALLIUM	221	B	221	UG/KG	U	948	CCBL,LBL,EGL
SOI	METAL	20406050905	060304-SOI-02704-00.5-D	FD	SW6010B	SW3050B	THALLIUM	488	B	488	UG/KG	U	1050	CCBL,LBL,EGL
SOI	METAL	20406050902	060304-SOI-02705-00.5	N	SW6010B	SW3050B	THALLIUM	234	B	234	UG/KG	U	946	CCBL,LBL,EGL
SOI	METAL	20406050907	060304-SOI-02720-00.5	N	SW6010B	SW3050B	THALLIUM	508	B	508	UG/KG	U	944	CCBL,LBL,EGL
SOI	METAL	20406050911	060304-SOI-02722-00.5	N	SW6010B	SW3050B	THALLIUM	445	B	445	UG/KG	U	939	CCBL,LBL,EGL
SOI	METAL	20406050917	060404-SOI-02728-00.5	N	SW6010B	SW3050B	THALLIUM	331	B	331	UG/KG	U	1010	CCBL,LBL,EGL
SED	METAL	20407020813RE	063004-SED-02724-00.2	N	SW6010B	SW3050B	Copper	1490	=	1490	UG/KG	U	453	EGL
SED	METAL	20407020815RE	063004-SED-02726-00.2	N	SW6010B	SW3050B	Copper	1190	=	1190	UG/KG	U	479	EGL
SED	METAL	20407020816RE	063004-SED-02726-00.2-D	FD	SW6010B	SW3050B	Copper	1460	=	1460	UG/KG	U	485	EGL
SED	METAL	20407020803RE	063004-SED-02708-00.2-D	FD	SW6010B	SW3050B	Copper	985	=	985	UG/KG	U	504	EGL
SED	METAL	20407020807RE	063004-SED-02710-00.2	N	SW6010B	SW3050B	Copper	1330	=	1330	UG/KG	U	453	EGL
SED	METAL	20407020801RE	063004-SED-02707-00.2	N	SW6010B	SW3050B	Copper	1510	=	1510	UG/KG	U	470	EGL
SED	METAL	20407020802RE	063004-SED-02708-00.2	N	SW6010B	SW3050B	Copper	972	=	972	UG/KG	U	504	EGL
SED	METAL	20407020808RE	063004-SED-02715-00.2	N	SW6010B	SW3050B	Copper	972	=	972	UG/KG	U	509	EGL
SED	METAL	20407020810RE	063004-SED-02717-00.2	N	SW6010B	SW3050B	Copper	1210	=	1210	UG/KG	U	513	EGL
SED	METAL	20407020811RE	063004-SED-02718-00.2	N	SW6010B	SW3050B	Copper	843	=	843	UG/KG	U	491	EGL
SED	METAL	20407020812RE	063004-SED-02723-00.2	N	SW6010B	SW3050B	Copper	1460	=	1460	UG/KG	U	474	EGL
SED	METAL	20406302304	062804-SED-02694-00.2	N	SW7471A	METHOD	MERCURY	4.08	B	4.08	UG/KG	J	11.1	IB
SED	METAL	20406302304	062804-SED-02694-00.2	N	SW6010B	SW3050B	LEAD	1140	B	1140	UG/KG	J	1320	IB
SED	METAL	20406302304	062804-SED-02694-00.2	N	SW6010B	SW3050B	LITHIUM	2790	B	2790	UG/KG	J	4400	IB
SED	METAL	20406302304	062804-SED-02694-00.2	N	SW6010B	SW3050B	NICKEL	1810	B	1810	UG/KG	J	2200	IB
SED	METAL	20406302304	062804-SED-02694-00.2	N	SW6010B	SW3050B	ARSENIC	1930	B	1.93	MG/KG	J	2200	IB
SED	METAL	20406302304	062804-SED-02694-00.2	N	SW6010B	SW3050B	BERYLLIUM	152	B	0.152	MG/KG	J	440	IB
SED	METAL	20406302304	062804-SED-02694-00.2	N	SW6010B	SW3050B	VANADIUM	1280	B	1.28	MG/KG	J	1760	IB
SED	METAL	20406302314	062904-SED-02734-00.2	N	SW7471A	METHOD	MERCURY	10.7	B	10.7	UG/KG	J	11.8	IB
SED	METAL	20406302314	062904-SED-02734-00.2	N	SW6010B	SW3050B	LITHIUM	966	B	966	UG/KG	J	2340	IB
SED	METAL	20406302303	062804-SED-02693-00.2	N	SW7471A	METHOD	MERCURY	3.66	B	3.66	UG/KG	J	11.9	IB
SED	METAL	20406302303	062804-SED-02693-00.2	N	SW6010B	SW3050B	BERYLLIUM	182	B	0.182	MG/KG	J	237	IB
SED	METAL	20406302315	062904-SED-02734-00.2-D	FD	SW7471A	METHOD	MERCURY	11.4	B	11.4	UG/KG	J	11.8	IB
SED	METAL	20406302315	062904-SED-02734-00.2-D	FD	SW6010B	SW3050B	LITHIUM	958	B	958	UG/KG	J	2330	IB
SED	METAL	20406302313	062904-SED-02733-00.2	N	SW6010B	SW3050B	LITHIUM	2350	B	2350	UG/KG	J	2420	IB
SED	METAL	20406302313	062904-SED-02733-00.2	N	SW6010B	SW3050B	BERYLLIUM	98.3	B	0.0983	MG/KG	J	242	IB
SED	METAL	20406302302	062804-SED-02692-00.2	N	SW7471A	METHOD	MERCURY	3.58	B	3.58	UG/KG	J	12.2	IB
SED	METAL	20406302302	062804-SED-02692-00.2	N	SW6010B	SW3050B	LITHIUM	1480	B	1480	UG/KG	J	2450	IB
SED	METAL	20406302302	062804-SED-02692-00.2	N	SW6010B	SW3050B	NICKEL	1180	B	1180	UG/KG	J	1220	IB
SED	METAL	20406302302	062804-SED-02692-00.2	N	SW6010B	SW3050B	ARSENIC	1160	B	1.16	MG/KG	J	1220	IB
SED	METAL	20406302302	062804-SED-02692-00.2	N	SW6010B	SW3050B	BERYLLIUM	61.4	B	0.0614	MG/KG	J	245	IB
SED	METAL	20406302309	062904-SED-02731-00.2	N	SW7471A	METHOD	MERCURY	8.32	B	8.32	UG/KG	J	12	IB
SED	METAL	20406302309	062904-SED-02731-00.2	N	SW6010B	SW3050B	LITHIUM	690	B	690	UG/KG	J	2390	IB
SED	METAL	20406302309	062904-SED-02731-00.2	N	SW6010B	SW3050B	NICKEL	1060	B	1060	UG/KG	J	1200	IB
SED	METAL	20406302301	062804-SED-02691-00.2	N	SW7471A	METHOD	MERCURY	3.95	B	3.95	UG/KG	J	11.7	IB
SED	METAL	20406302301	062804-SED-02691-00.2	N	SW6010B	SW3050B	BERYLLIUM	122	B	0.122	MG/KG	J	234	IB
SED	METAL	20406302307	062804-SED-02691-00.2	N	SW6010B	SW3050B	CYANIDE, TOTAL	0.1708	B	0.1708	MG/KG	J	0.305	IB

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SED	METAL	20406302308	062904-SED-02702-00.2	N	SW7471A	METHOD	MERCURY	3.69	B	3.69	UG/KG	J	11.1	IB
SED	METAL	20406302308	062904-SED-02702-00.2	N	SW6010B	SW3050B	LITHIUM	1710	B	1710	UG/KG	J	2200	IB
SED	METAL	20406302308	062904-SED-02702-00.2	N	SW6010B	SW3050B	BERYLLIUM	102	B	0.102	MG/KG	J	220	IB
SED	METAL	20406302307	062904-SED-02701-00.2	N	SW7471A	METHOD	MERCURY	3.42	B	3.42	UG/KG	J	12.2	IB
SED	METAL	20406302307	062904-SED-02701-00.2	N	SW6010B	SW3050B	LITHIUM	1810	B	1810	UG/KG	J	2440	IB
SED	METAL	20406302307	062904-SED-02701-00.2	N	SW6010B	SW3050B	BERYLLIUM	104	B	0.104	MG/KG	J	244	IB
SED	METAL	20406302306	062904-SED-02700-00.2	N	SW7471A	METHOD	MERCURY	2.82	B	2.82	UG/KG	J	11.2	IB
SED	METAL	20406302306	062904-SED-02700-00.2	N	SW6010B	SW3050B	ARSENIC	1020	B	1.02	MG/KG	J	1130	IB
SED	METAL	20406302306	062904-SED-02700-00.2	N	SW6010B	SW3050B	BERYLLIUM	135	B	0.135	MG/KG	J	225	IB
SED	METAL	20406302312	062904-SED-02732-00.2	N	SW6010B	SW3050B	LITHIUM	1300	B	1300	UG/KG	J	2530	IB
SED	METAL	20406302312	062904-SED-02732-00.2	N	SW6010B	SW3050B	ARSENIC	1020	B	1.02	MG/KG	J	1260	IB
SED	METAL	20406302312	062904-SED-02732-00.2	N	SW6010B	SW3050B	BERYLLIUM	50	B	0.05	MG/KG	J	253	IB
SED	METAL	20406302305	062904-SED-02699-00.2	N	SW7471A	METHOD	MERCURY	4.14	B	4.14	UG/KG	J	11.4	IB
SED	METAL	20406302305	062904-SED-02699-00.2	N	SW6010B	SW3050B	LITHIUM	1570	B	1570	UG/KG	J	2260	IB
SED	METAL	20406302305	062904-SED-02699-00.2	N	SW6010B	SW3050B	ARSENIC	1040	B	1.04	MG/KG	J	1130	IB
SED	METAL	20406302305	062904-SED-02699-00.2	N	SW6010B	SW3050B	BERYLLIUM	69.3	B	0.0693	MG/KG	J	226	IB
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW9012A	METHOD	CYANIDE, TOTAL	0.115	B	0.115	MG/KG	J	0.337	IB
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.175	B	0.175	MG/KG	J	0.351	IB
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.122	B	0.122	MG/KG	J	0.291	IB
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.162	B	0.162	MG/KG	J	0.338	IB
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.248	B	0.248	MG/KG	J	0.335	IB
SOI	METAL	20406032401	060104-SOI-02687-02.0	N	SW6010B	SW3050B	NICKEL	1120	B	1120	UG/KG	J	1170	IB
SOI	METAL	20406032401	060104-SOI-02687-02.0	N	SW6010B	SW3050B	COBALT	273	B	0.273	MG/KG	J	467	IB
SOI	METAL	20406032412	060104-SOI-02687-00.5-D	FD	SW6010B	SW3050B	COBALT	464	B	0.464	MG/KG	J	466	IB
SOI	METAL	20406032407	060104-SOI-02687-04.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.112	B	0.112	MG/KG	J	0.312	IB
SOI	METAL	20406032416	060104-SOI-02688-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.112	B	0.112	MG/KG	J	0.267	IB
SOI	METAL	20406032406	060104-SOI-02688-07.0	N	SW7471A	METHOD	MERCURY	10.6	B	10.6	UG/KG	J	11.2	IB
SOI	METAL	20406032409	060104-SOI-02690-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.088	B	0.088	MG/KG	J	0.293	IB
SOI	METAL	20406050901	060304-SOI-02703-00.5	N	SW6010B	SW3050B	TIN	1790	B	1.79	MG/KG	J	4670	IB
SOI	METAL	20406050903	060304-SOI-02703-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.0882	B	0.0882	MG/KG	J	0.294	IB
SOI	METAL	20406050905	060304-SOI-02706-00.5	N	SW6010B	SW3050B	LITHIUM	1540	B	1540	UG/KG	J	2150	IB
SOI	METAL	20406050905	060304-SOI-02704-00.5-D	FD	SW9012A	METHOD	CYANIDE, TOTAL	0.0923	B	0.0923	MG/KG	J	0.3295	IB
SOI	METAL	20406050906	060304-SOI-02719-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.146	B	0.146	MG/KG	J	0.3173	IB
SOI	METAL	20406050907	060304-SOI-02720-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.0708	B	0.0708	MG/KG	J	0.2951	IB
SOI	METAL	20406050910	060304-SOI-02721-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.2377	B	0.2377	MG/KG	J	0.3301	IB
SOI	METAL	20406050911	060304-SOI-02722-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.0822	B	0.0822	MG/KG	J	0.2935	IB
SOI	METAL	20406050917	060404-SOI-02728-00.5	N	SW9012A	METHOD	CYANIDE, TOTAL	0.1658	B	0.1658	MG/KG	J	0.3188	IB
SED	METAL	20407020802RE	063004-SED-02708-00.2	N	SW6010B	SW3050B	Nickel	1110	B	1110	UG/KG	J	1260	IB
SED	METAL	20407020803RE	063004-SED-02708-00.2-D	FD	SW6010B	SW3050B	Lithium	849	B	849	UG/KG	J	2520	IB
SED	METAL	20407020816RE	063004-SED-02726-00.2-D	FD	SW6010B	SW3050B	Beryllium	108	B	0.108	MG/KG	J	243	IB
SED	METAL	20407020802RE	063004-SED-02708-00.2	N	SW6010B	SW3050B	Lithium	863	B	863	UG/KG	J	2520	IB
SED	METAL	20407020815RE	063004-SED-02726-00.2	N	SW6010B	SW3050B	Lithium	1860	B	1860	UG/KG	J	2400	IB
SED	METAL	20407020801RE	063004-SED-02707-00.2	N	SW6010B	SW3050B	Lithium	1440	B	1440	UG/KG	J	2350	IB
SED	METAL	20407020814RE	063004-SED-02725-00.2	N	SW6010B	SW3050B	Lithium	1700	B	1700	UG/KG	J	2470	IB
SED	METAL	20407020807RE	063004-SED-02710-00.2	N	SW6010B	SW3050B	Lithium	1710	B	1710	UG/KG	J	2270	IB
SED	METAL	20407020801RE	063004-SED-02707-00.2	N	SW6010B	SW3050B	Beryllium	58.1	B	0.0581	MG/KG	J	235	IB
SED	METAL	20407020802RE	063004-SED-02708-00.2	N	SW6010B	SW3050B	Beryllium	27.9	B	0.0279	MG/KG	J	252	IB
SED	METAL	20407020814RE	063004-SED-02725-00.2	N	SW6010B	SW3050B	Beryllium	70.2	B	0.0702	MG/KG	J	247	IB
SED	METAL	20407020815RE	063004-SED-02726-00.2	N	SW6010B	SW3050B	Beryllium	85.6	B	0.0856	MG/KG	J	240	IB
SED	METAL	20407020803RE	063004-SED-02708-00.2-D	FD	SW6010B	SW3050B	Nickel	1090	B	1090	UG/KG	J	1260	IB
SED	METAL	20407020806RE	063004-SED-02709-00.2	N	SW6010B	SW3050B	Beryllium	69.9	B	0.0699	MG/KG	J	235	IB
SED	METAL	20407020803RE	063004-SED-02708-00.2-D	FD	SW6010B	SW3050B	Beryllium	28.4	B	0.0284	MG/KG	J	252	IB
SED	METAL	20407020808RE	063004-SED-02715-00.2	N	SW6010B	SW3050B	Beryllium	45.7	B	0.0457	MG/KG	J	255	IB
SED	METAL	20407020811RE	063004-SED-02718-00.2	N	SW6010B	SW3050B	Beryllium	69.4	B	0.0694	MG/KG	J	245	IB
SED	METAL	20407020810RE	063004-SED-02717-00.2	N	SW6010B	SW3050B	Beryllium	60.8	B	0.0608	MG/KG	J	256	IB
SED	METAL	20407020812RE	063004-SED-02723-00.2	N	SW6010B	SW3050B	Beryllium	100	B	0.1	MG/KG	J	237	IB
SED	METAL	20407020813RE	063004-SED-02724-00.2	N	SW6010B	SW3050B	Beryllium	164	B	0.164	MG/KG	J	227	IB
SED	METAL	20407020808RE	063004-SED-02715-00.2	N	SW6010B	SW3050B	Lithium	1420	B	1420	UG/KG	J	2550	IB
SED	METAL	20407020809RE	063004-SED-02716-00.2	N	SW6010B	SW3050B	Lithium	2260	B	2260	UG/KG	J	2270	IB
SED	METAL	20407020810RE	063004-SED-02717-00.2	N	SW6010B	SW3050B	Lithium	1350	B	1350	UG/KG	J	2560	IB
SED	METAL	20407020811RE	063004-SED-02718-00.2	N	SW6010B	SW3050B	Lithium	2060	B	2060	UG/KG	J	2450	IB
SED	METAL	20407020812RE	063004-SED-02723-00.2	N	SW6010B	SW3050B	Lithium	2280	B	2280	UG/KG	J	2370	IB
SED	METAL	20407020807RE	063004-SED-02710-00.2	N	SW6010B	SW3050B	Beryllium	67.2	B	0.0672	MG/KG	J	227	IB
SED	METAL	20407020809RE	063004-SED-02716-00.2	N	SW6010B	SW3050B	Beryllium	75.7	B	0.0757	MG/KG	J	227	IB
SED	METAL	20407020810	063004-SED-02717-00.2	N	SW9012A	METHOD	CYANIDE, TOTAL	0.2948	B	0.2948	MG/KG	J	0.3205	IB
SED	METAL	20406302304	062804-SED-02694-00.2	N	SW6010B	SW3050B	TIN	1950	B	1.95	MG/KG	U	8800	LBL
SED	METAL	20406302304	062804-SED-02694-00.2	N	SW6010B	SW3050B	CADMIUM	175	B	0.175	MG/KG	U	440	LBL
SED	METAL	20406302314	062904-SED-02734-00.2	N	SW6010B	SW3050B	TIN	2430	B	2.43	MG/KG	U	4690	LBL

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SED	METAL	20406302314	062904-SED-02734-00.2	N	SW6010B	SW3050B	CADMIUM	74.5 B	0.0745	MG/KG	U		234	LBL
SED	METAL	20406302303	062804-SED-02693-00.2	N	SW6010B	SW3050B	TIN	1380 B	1.38	MG/KG	U		4740	LBL
SED	METAL	20406302303	062804-SED-02693-00.2	N	SW6010B	SW3050B	CADMIUM	173 B	0.173	MG/KG	U		237	LBL
SED	METAL	20406302315	062904-SED-02734-00.2-D	FD	SW6010B	SW3050B	TIN	2110 B	2.11	MG/KG	U		4670	LBL
SED	METAL	20406302302	062804-SED-02692-00.2	N	SW6010B	SW3050B	TIN	1210 B	1.21	MG/KG	U		4900	LBL
SED	METAL	20406302309	062904-SED-02731-00.2	N	SW6010B	SW3050B	TIN	1150 B	1.15	MG/KG	U		4790	LBL
SED	METAL	20406302301	062804-SED-02691-00.2	N	SW6010B	SW3050B	TIN	1630 B	1.63	MG/KG	U		4680	LBL
SED	METAL	20406302301	062804-SED-02691-00.2	N	SW6010B	SW3050B	CADMIUM	139 B	0.139	MG/KG	U		234	LBL
SED	METAL	20406302308	062904-SED-02702-00.2	N	SW6010B	SW3050B	TIN	1980 B	1.98	MG/KG	U		4400	LBL
SED	METAL	20406302308	062904-SED-02702-00.2	N	SW6010B	SW3050B	CADMIUM	128 B	0.128	MG/KG	U		220	LBL
SED	METAL	20406302307	062904-SED-02701-00.2	N	SW6010B	SW3050B	TIN	1790 B	1.79	MG/KG	U		4880	LBL
SED	METAL	20406302307	062904-SED-02701-00.2	N	SW6010B	SW3050B	CADMIUM	146 B	0.146	MG/KG	U		244	LBL
SOI	METAL	20406042501	060204-SOI-02695-00.5	N	SW6010B	SW3050B	TIN	1570 B	1.57	MG/KG	U		5150	LBL
SED	METAL	20406302306	062904-SED-02700-00.2	N	SW6010B	SW3050B	TIN	1760 B	1.76	MG/KG	U		4500	LBL
SED	METAL	20406302306	062904-SED-02700-00.2	N	SW6010B	SW3050B	CADMIUM	141 B	0.141	MG/KG	U		225	LBL
SED	METAL	20406302312	062904-SED-02732-00.2	N	SW6010B	SW3050B	TIN	1440 B	1.44	MG/KG	U		5060	LBL
SOI	METAL	20406042507	060204-SOI-02695-01.5	N	SW6010B	SW3050B	TIN	1420 B	1.42	MG/KG	U		4710	LBL
SED	METAL	20406302305	062904-SED-02699-00.2	N	SW6010B	SW3050B	TIN	1030 B	1.03	MG/KG	U		4520	LBL
SED	METAL	20406302305	062904-SED-02699-00.2	N	SW6010B	SW3050B	CADMIUM	93.9 B	0.0939	MG/KG			226	LBL
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	TIN	2310 B	2.31	MG/KG	U		5610	LBL
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	TIN	1440 B	1.44	MG/KG	U		5000	LBL
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	TIN	1900 B	1.9	MG/KG	U		5400	LBL
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	TIN	2220 B	2.22	MG/KG	U		5360	LBL
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	TIN	1970 B	1.97	MG/KG	U		5360	LBL
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW6010B	SW3050B	TIN	1280 B	1.28	MG/KG	U		4650	LBL
SOI	METAL	20406042504	060204-SOI-02697-00.5-D	FD	SW6010B	SW3050B	TIN	1670 B	1.67	MG/KG	U		5430	LBL
SOI	METAL	20406050904	060304-SOI-02704-00.5	N	SW6010B	SW3050B	TIN	1860 B	1.86	MG/KG	U		4740	LBL
SOI	METAL	20406050905	060304-SOI-02704-00.5-D	FD	SW6010B	SW3050B	TIN	2070 B	2.07	MG/KG	U		5270	LBL
SOI	METAL	20406050903	060304-SOI-02706-00.5	N	SW6010B	SW3050B	TIN	1580 B	1.58	MG/KG	U		4310	LBL
SOI	METAL	20406050902	060304-SOI-02705-00.5	N	SW6010B	SW3050B	TIN	1890 B	1.89	MG/KG	U		4730	LBL
SOI	METAL	20406050906	060304-SOI-02719-00.5	N	SW6010B	SW3050B	TIN	1730 B	1.73	MG/KG	U		5080	LBL
SOI	METAL	20406050907	060304-SOI-02720-00.5	N	SW6010B	SW3050B	TIN	1750 B	1.75	MG/KG	U		4720	LBL
SOI	METAL	20406050910	060304-SOI-02721-00.5	N	SW6010B	SW3050B	TIN	2150 B	2.15	MG/KG	U		5240	LBL
SOI	METAL	20406050911	060304-SOI-02722-00.5	N	SW6010B	SW3050B	TIN	1880 B	1.88	MG/KG	U		4700	LBL
SOI	METAL	20406050912	060404-SOI-02711-00.5	N	SW6010B	SW3050B	TIN	3020 B	3.02	MG/KG	U		5640	LBL
SOI	METAL	20406050913	060404-SOI-02712-00.5	N	SW6010B	SW3050B	TIN	2220 B	2.22	MG/KG	U		5000	LBL
SOI	METAL	20406050914	060404-SOI-02713-00.5	N	SW6010B	SW3050B	TIN	2590 B	2.59	MG/KG	U		5920	LBL
SOI	METAL	20406050915	060404-SOI-02714-00.5	N	SW6010B	SW3050B	TIN	2780 B	2.78	MG/KG	U		5390	LBL
SOI	METAL	20406050916	060404-SOI-02727-00.5	N	SW6010B	SW3050B	TIN	3030 B	3.03	MG/KG	U		5410	LBL
SOI	METAL	20406050917	060404-SOI-02728-00.5	N	SW6010B	SW3050B	TIN	1640 B	1.64	MG/KG	U		5060	LBL
SOI	METAL	20406050918	060404-SOI-02729-00.5	N	SW6010B	SW3050B	TIN	3440 B	3.44	MG/KG	U		5670	LBL
SOI	METAL	20406050919	060404-SOI-02730-00.5	N	SW6010B	SW3050B	TIN	2580 B	2.58	MG/KG	U		5180	LBL
SOI	METAL	20406050920	060404-SOI-02730-00.5-D	FD	SW6010B	SW3050B	TIN	2820 B	2.82	MG/KG	U		5160	LBL
SED	METAL	20407020806	063004-SED-02709-00.2	N	SW7471A	METHOD	Mercury	4.01 B	4.01	4.01	UG/KG	U	11.8	LBL
SED	METAL	20407020801RE	063004-SED-02707-00.2	N	SW6010B	SW3050B	Tin	1240 B	1.24	MG/KG	U		4700	LBL
SED	METAL	20407020814RE	063004-SED-02725-00.2	N	SW6010B	SW3050B	Tin	1120 B	1.12	MG/KG	U		4930	LBL
SED	METAL	20407020814	063004-SED-02725-00.2	N	SW7471A	METHOD	Mercury	6.78 B	6.78	UG/KG	U		12.2	LBL
SED	METAL	20407020803RE	063004-SED-02708-00.2-D	FD	SW6010B	SW3050B	Tin	3250 B	3.25	MG/KG	U		5040	LBL
SED	METAL	20407020815	063004-SED-02726-00.2	N	SW7471A	METHOD	Mercury	3.88 B	3.88	UG/KG	U		11.9	LBL
SED	METAL	20407020816	063004-SED-02726-00.2-D	FD	SW7471A	METHOD	Mercury	4.52 B	4.52	UG/KG	U		11.9	LBL
SED	METAL	20407020816RE	063004-SED-02726-00.2-D	FD	SW6010B	SW3050B	Tin	1220 B	1.22	MG/KG	U		4850	LBL
SED	METAL	20407020802RE	063004-SED-02708-00.2	N	SW6010B	SW3050B	Tin	1010 B	1.01	MG/KG	U		5040	LBL
SED	METAL	20407020815RE	063004-SED-02726-00.2	N	SW6010B	SW3050B	Tin	1560 B	1.56	MG/KG	U		4790	LBL
SED	METAL	20407020806RE	063004-SED-02709-00.2	N	SW6010B	SW3050B	Tin	1220 B	1.22	MG/KG	U		4700	LBL
SED	METAL	20407020807RE	063004-SED-02710-00.2	N	SW6010B	SW3050B	Tin	1170 B	1.17	MG/KG	U		4530	LBL
SED	METAL	20407020811	063004-SED-02718-00.2	N	SW7471A	METHOD	Mercury	8.28 B	8.28	UG/KG	U		12.1	LBL
SED	METAL	20407020811RE	063004-SED-02718-00.2	N	SW6010B	SW3050B	Tin	1380 B	1.38	MG/KG	U		4910	LBL
SED	METAL	20407020810RE	063004-SED-02717-00.2	N	SW6010B	SW3050B	Tin	956 B	0.956	MG/KG	U		5130	LBL
SED	METAL	20407020812RE	063004-SED-02723-00.2	N	SW6010B	SW3050B	Tin	1800 B	1.8	MG/KG	U		4740	LBL
SED	METAL	20407020812	063004-SED-02723-00.2	N	SW7471A	METHOD	Mercury	4.36 B	4.36	UG/KG	U		11.7	LBL
SED	METAL	20407020813RE	063004-SED-02724-00.2	N	SW6010B	SW3050B	Tin	1930 B	1.93	MG/KG	U		4530	LBL
SED	METAL	20407020808RE	063004-SED-02715-00.2	N	SW6010B	SW3050B	Tin	1700 B	1.7	MG/KG	U		5090	LBL
SED	METAL	20407020809RE	063004-SED-02716-00.2	N	SW6010B	SW3050B	Tin	1630 B	1.63	MG/KG	U		4550	LBL
SOI	METAL	20406042501	060204-SOI-02695-00.5	N	SW6010B	SW3050B	ANTIMONY	176 U	0.176	MG/KG	R		2570	MSL, MSDL
SOI	METAL	20406042507	060204-SOI-02695-01.5	N	SW6010B	SW3050B	ANTIMONY	161 U	0.161	MG/KG	R		2350	MSL, MSDL
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	ANTIMONY	192 U	0.192	MG/KG	R		2800	MSL, MSDL
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	ANTIMONY	171 U	0.171	MG/KG	R		2500	MSL, MSDL
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	ANTIMONY	185 U	0.185	MG/KG	R		2700	MSL, MSDL

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	ANTIMONY	184 U	0.184	MG/KG	R	2680	MSL, MSDL	
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	ANTIMONY	184 U	0.184	MG/KG	R	2680	MSL, MSDL	
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW6010B	SW3050B	ANTIMONY	159 U	0.159	MG/KG	R	2320	MSL, MSDL	
SOI	METAL	20406042504	060204-SOI-02697-00.5-D	FD	SW6010B	SW3050B	ANTIMONY	186 U	0.186	MG/KG	R	2710	MSL, MSDL	
SOI	METAL	20406032401	060104-SOI-02687-02.0	N	SW6010B	SW3050B	ANTIMONY	160 U	0.16	MG/KG	UJ	2330	MSL, MSDL	
SOI	METAL	20406032412	060104-SOI-02687-00.5-D	FD	SW6010B	SW3050B	ANTIMONY	160 U	0.16	MG/KG	UJ	2330	MSL, MSDL	
SOI	METAL	20406032407	060104-SOI-02687-04.5	N	SW6010B	SW3050B	ANTIMONY	170 U	0.17	MG/KG	UJ	2480	MSL, MSDL	
SOI	METAL	20406032416	060104-SOI-02688-00.5	N	SW6010B	SW3050B	ANTIMONY	147 U	0.147	MG/KG	UJ	2140	MSL, MSDL	
SOI	METAL	20406032402	060104-SOI-02688-02.0	N	SW6010B	SW3050B	ANTIMONY	149 U	0.149	MG/KG	UJ	2170	MSL, MSDL	
SOI	METAL	20406032404	060104-SOI-02688-04.0	N	SW6010B	SW3050B	ANTIMONY	154 U	0.154	MG/KG	UJ	2250	MSL, MSDL	
SOI	METAL	20406032408	060104-SOI-02688-06.0	N	SW6010B	SW3050B	ANTIMONY	151 U	0.151	MG/KG	UJ	2210	MSL, MSDL	
SOI	METAL	20406032406	060104-SOI-02688-07.0	N	SW6010B	SW3050B	ANTIMONY	154 U	0.154	MG/KG	UJ	2250	MSL, MSDL	
SOI	METAL	20406032403	060104-SOI-02689-00.5	N	SW6010B	SW3050B	ANTIMONY	165 U	0.165	MG/KG	UJ	2410	MSL, MSDL	
SOI	METAL	20406032415	060104-SOI-02689-02.0	N	SW6010B	SW3050B	ANTIMONY	155 U	0.155	MG/KG	UJ	2260	MSL, MSDL	
SOI	METAL	20406032405	060104-SOI-02689-04.5	N	SW6010B	SW3050B	ANTIMONY	163 U	0.163	MG/KG	UJ	2380	MSL, MSDL	
SOI	METAL	20406032409	060104-SOI-02690-00.5	N	SW6010B	SW3050B	ANTIMONY	161 U	0.161	MG/KG	UJ	2350	MSL, MSDL	
SOI	METAL	20406032413	060104-SOI-02690-02.0	N	SW6010B	SW3050B	ANTIMONY	158 U	0.158	MG/KG	UJ	2310	MSL, MSDL	
SOI	METAL	20406050901	060304-SOI-02703-00.5	N	SW6010B	SW3050B	ANTIMONY	160 U	0.16	MG/KG	R	2330	MSL, MSDL	
SOI	METAL	20406050904	060304-SOI-02704-00.5	N	SW6010B	SW3050B	ANTIMONY	162 U	0.162	MG/KG	R	2370	MSL, MSDL	
SOI	METAL	20406050905	060304-SOI-02704-00.5-D	FD	SW6010B	SW3050B	ANTIMONY	212 B	0.212	MG/KG	J	2640	MSL, MSDL	
SOI	METAL	20406050903	060304-SOI-02706-00.5	N	SW6010B	SW3050B	ANTIMONY	147 U	0.147	MG/KG	R	2150	MSL, MSDL	
SOI	METAL	20406050902	060304-SOI-02705-00.5	N	SW6010B	SW3050B	ANTIMONY	162 U	0.162	MG/KG	R	2370	MSL, MSDL	
SOI	METAL	20406050906	060304-SOI-02719-00.5	N	SW6010B	SW3050B	ANTIMONY	174 U	0.174	MG/KG	R	2540	MSL, MSDL	
SOI	METAL	20406050907	060304-SOI-02720-00.5	N	SW6010B	SW3050B	ANTIMONY	162 U	0.162	MG/KG	R	2360	MSL, MSDL	
SOI	METAL	20406050910	060304-SOI-02721-00.5	N	SW6010B	SW3050B	ANTIMONY	179 U	0.179	MG/KG	R	2620	MSL, MSDL	
SOI	METAL	20406050911	060304-SOI-02722-00.5	N	SW6010B	SW3050B	ANTIMONY	161 U	0.161	MG/KG	R	2350	MSL, MSDL	
SOI	METAL	20406050912	060404-SOI-02711-00.5	N	SW6010B	SW3050B	ANTIMONY	193 U	0.193	MG/KG	R	2820	MSL, MSDL	
SOI	METAL	20406050913	060404-SOI-02712-00.5	N	SW6010B	SW3050B	ANTIMONY	171 U	0.171	MG/KG	R	2500	MSL, MSDL	
SOI	METAL	20406050914	060404-SOI-02713-00.5	N	SW6010B	SW3050B	ANTIMONY	203 U	0.203	MG/KG	R	2960	MSL, MSDL	
SOI	METAL	20406050915	060404-SOI-02714-00.5	N	SW6010B	SW3050B	ANTIMONY	185 U	0.185	MG/KG	R	2700	MSL, MSDL	
SOI	METAL	20406050916	060404-SOI-02727-00.5	N	SW6010B	SW3050B	ANTIMONY	187 B	0.187	MG/KG	J	2700	MSL, MSDL	
SOI	METAL	20406050917	060404-SOI-02728-00.5	N	SW6010B	SW3050B	ANTIMONY	173 U	0.173	MG/KG	R	2530	MSL, MSDL	
SOI	METAL	20406050918	060404-SOI-02729-00.5	N	SW6010B	SW3050B	ANTIMONY	194 U	0.194	MG/KG	R	2830	MSL, MSDL	
SOI	METAL	20406050919	060404-SOI-02730-00.5	N	SW6010B	SW3050B	ANTIMONY	178 U	0.178	MG/KG	R	2590	MSL, MSDL	
SOI	METAL	20406050920	060404-SOI-02730-00.5-D	FD	SW6010B	SW3050B	ANTIMONY	177 U	0.177	MG/KG	R	2580	MSL, MSDL	
SOI	METAL	20406032414	060104-SOI-02687-00.5	N	SW6010B	SW3050B	ANTIMONY	162 U	0.162	MG/KG	UJ	2370	MSL, MSDL	
SOI	METAL	20406042501	060204-SOI-02695-00.5	N	SW6010B	SW3050B	LEAD	9170	=	9170	UG/KG	J	772 SDIL	
SOI	METAL	20406042501	060204-SOI-02695-00.5	N	SW6010B	SW3050B	NICKEL	6690	=	6690	UG/KG	J	1290 SDIL	
SOI	METAL	20406042501	060204-SOI-02695-00.5	N	SW6010B	SW3050B	BARIUM	33200	=	33.2	MG/KG	J	515 SDIL	
SOI	METAL	20406042501	060204-SOI-02695-00.5	N	SW6010B	SW3050B	BERYLLIUM	290	=	0.29	MG/KG	J	257 SDIL	
SOI	METAL	20406042501	060204-SOI-02695-00.5	N	SW6010B	SW3050B	CADMIUM	331	=	0.331	MG/KG	J	257 SDIL	
SOI	METAL	20406042501	060204-SOI-02695-00.5	N	SW6010B	SW3050B	COBALT	3370	=	3.37	MG/KG	J	515 SDIL	
SOI	METAL	20406042501	060204-SOI-02695-00.5	N	SW6010B	SW3050B	VANADIUM	10600	=	10.6	MG/KG	J	1030 SDIL	
SOI	METAL	20406042501	060204-SOI-02695-00.5	N	SW6010B	SW3050B	ZINC	24800	=	24800	UG/KG	J	1030 SDIL	
SOI	METAL	20406042507	060204-SOI-02695-01.5	N	SW6010B	SW3050B	LEAD	4600	=	4600	UG/KG	J	706 SDIL	
SOI	METAL	20406042507	060204-SOI-02695-01.5	N	SW6010B	SW3050B	NICKEL	6790	=	6790	UG/KG	J	1180 SDIL	
SOI	METAL	20406042507	060204-SOI-02695-01.5	N	SW6010B	SW3050B	BARIUM	21600	=	21.6	MG/KG	J	471 SDIL	
SOI	METAL	20406042507	060204-SOI-02695-01.5	N	SW6010B	SW3050B	BERYLLIUM	234 B	=	0.234	MG/KG	J	235 SDIL	
SOI	METAL	20406042507	060204-SOI-02695-01.5	N	SW6010B	SW3050B	CADMIUM	233	=	0.233	MG/KG	J	235 SDIL	
SOI	METAL	20406042507	060204-SOI-02695-01.5	N	SW6010B	SW3050B	COBALT	4580	=	4.58	MG/KG	J	471 SDIL	
SOI	METAL	20406042507	060204-SOI-02695-01.5	N	SW6010B	SW3050B	VANADIUM	10700	=	10.7	MG/KG	J	941 SDIL	
SOI	METAL	20406042507	060204-SOI-02695-01.5	N	SW6010B	SW3050B	ZINC	16100	=	16100	UG/KG	J	941 SDIL	
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	VANADIUM	13300	=	13.3	MG/KG	J	1120 SDIL	
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	ZINC	48700	=	48700	UG/KG	J	1120 SDIL	
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	LEAD	15000	=	15000	UG/KG	J	841 SDIL	
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	NICKEL	13200	=	13200	UG/KG	J	1400 SDIL	
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	BARIUM	68800	=	68.8	MG/KG	J	561 SDIL	
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	BERYLLIUM	434	=	0.434	MG/KG	J	280 SDIL	
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	CADMIUM	533	=	0.533	MG/KG	J	280 SDIL	
SOI	METAL	20406042502	060204-SOI-02696-00.5	N	SW6010B	SW3050B	COBALT	5390	=	5.39	MG/KG	J	561 SDIL	
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	LEAD	5300	=	5300	UG/KG	J	750 SDIL	
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	NICKEL	12000	=	12000	UG/KG	J	1250 SDIL	
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	BARIUM	51200	=	51.2	MG/KG	J	500 SDIL	
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	BERYLLIUM	347	=	0.347	MG/KG	J	250 SDIL	
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	CADMIUM	382	=	0.382	MG/KG	J	250 SDIL	
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	COBALT	4520	=	4.52	MG/KG	J	500 SDIL	
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	VANADIUM	12000	=	12	MG/KG	J	1000 SDIL	
SOI	METAL	20406042508	060204-SOI-02696-04.0	N	SW6010B	SW3050B	ZINC	29200	=	29200	UG/KG	J	1000 SDIL	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT		VALIDATION REASON CODES
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	LEAD	6020 =	6020	UG/KG	J		809	SDIL	
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	NICKEL	12700 =	12700	UG/KG	J		1350	SDIL	
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	BARIUM	78500 =	78.5	MG/KG	J		540	SDIL	
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	BERYLLIUM	430 =	0.43	MG/KG	J		270	SDIL	
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	CADMIUM	533 =	0.533	MG/KG	J		270	SDIL	
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	COBALT	5320 =	5.32	MG/KG	J		540	SDIL	
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	VANADIUM	12900 =	12.9	MG/KG	J		1080	SDIL	
SOI	METAL	20406042511	060204-SOI-02696-02.0	N	SW6010B	SW3050B	ZINC	37700 =	37700	UG/KG	J		1080	SDIL	
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	LEAD	11600 =	11600	UG/KG	J		804	SDIL	
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	NICKEL	8550 =	8550	UG/KG	J		1340	SDIL	
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	BARIUM	51400 =	51.4	MG/KG	J		536	SDIL	
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	BERYLLIUM	414 =	0.414	MG/KG	J		268	SDIL	
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	CADMIUM	405 =	0.405	MG/KG	J		268	SDIL	
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	COBALT	4460 =	4.46	MG/KG	J		536	SDIL	
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	VANADIUM	13800 =	13.8	MG/KG	J		1070	SDIL	
SOI	METAL	20406042503	060204-SOI-02697-00.5	N	SW6010B	SW3050B	ZINC	32600 =	32600	UG/KG	J		1070	SDIL	
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	LEAD	11700 =	11700	UG/KG	J		804	SDIL	
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	NICKEL	6610 =	6610	UG/KG	J		1340	SDIL	
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	BARIUM	59300 =	59.3	MG/KG	J		536	SDIL	
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW6010B	SW3050B	LEAD	3590 =	3590	UG/KG	J		697	SDIL	
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW6010B	SW3050B	NICKEL	5810 =	5810	UG/KG	J		1160	SDIL	
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW6010B	SW3050B	BARIUM	16700 =	16.7	MG/KG	J		465	SDIL	
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW6010B	SW3050B	BERYLLIUM	206 B	0.206	MG/KG	J		232	SDIL	
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW6010B	SW3050B	CADMIUM	158 B	0.158	MG/KG	J		232	SDIL	
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW6010B	SW3050B	COBALT	2530 =	2.53	MG/KG	J		465	SDIL	
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW6010B	SW3050B	VANADIUM	9630 =	9.63	MG/KG	J		930	SDIL	
SOI	METAL	20406042510	060204-SOI-02697-02.5	N	SW6010B	SW3050B	ZINC	12400 =	12400	UG/KG	J		930	SDIL	
SOI	METAL	20406042504	060204-SOI-02697-00.5-D	FD	SW6010B	SW3050B	LEAD	11500 =	11500	UG/KG	J		814	SDIL	
SOI	METAL	20406042504	060204-SOI-02697-00.5-D	FD	SW6010B	SW3050B	NICKEL	8660 =	8660	UG/KG	J		1360	SDIL	
SOI	METAL	20406042504	060204-SOI-02697-00.5-D	FD	SW6010B	SW3050B	BARIUM	50300 =	50.3	MG/KG	J		543	SDIL	
SOI	METAL	20406042504	060204-SOI-02697-00.5-D	FD	SW6010B	SW3050B	BERYLLIUM	434 =	0.434	MG/KG	J		271	SDIL	
SOI	METAL	20406042504	060204-SOI-02697-00.5-D	FD	SW6010B	SW3050B	CADMIUM	399 =	0.399	MG/KG	J		271	SDIL	
SOI	METAL	20406042504	060204-SOI-02697-00.5-D	FD	SW6010B	SW3050B	COBALT	4370 =	4.37	MG/KG	J		543	SDIL	
SOI	METAL	20406042504	060204-SOI-02697-00.5-D	FD	SW6010B	SW3050B	VANADIUM	14000 =	14	MG/KG	J		1090	SDIL	
SOI	METAL	20406032412	060104-SOI-02687-00.5-D	FD	SW6010B	SW3050B	ZINC	31400 =	31400	UG/KG	J		1090	SDIL	
SOI	METAL	20406032412	060104-SOI-02687-00.5-D	FD	SW6010B	SW3050B	LITHIUM	1240 B	1240	UG/KG	J		2330	SDIL	
SOI	METAL	20406032401	060104-SOI-02687-02.0	N	SW6010B	SW3050B	LITHIUM	791 B	791	UG/KG	J		2330	SDIL	
SOI	METAL	20406032401	060104-SOI-02687-02.0	N	SW6010B	SW3050B	ARSENIC	457 B	0.457	MG/KG	J		1170	SDIL	
SOI	METAL	20406032412	060104-SOI-02687-00.5-D	FD	SW6010B	SW3050B	ARSENIC	509 B	0.509	MG/KG	J		1170	SDIL	
SOI	METAL	20406032412	060104-SOI-02687-00.5-D	FD	SW6010B	SW3050B	BERYLLIUM	169 B	0.169	MG/KG	J		233	SDIL	
SOI	METAL	20406032407	060104-SOI-02687-04.5	N	SW6010B	SW3050B	LITHIUM	1900 B	1900	UG/KG	J		2480	SDIL	
SOI	METAL	20406032407	060104-SOI-02687-04.5	N	SW6010B	SW3050B	ARSENIC	4250 =	4.25	MG/KG	J		1240	SDIL	
SOI	METAL	20406032416	060104-SOI-02688-00.5	N	SW6010B	SW3050B	LITHIUM	1650 B	1650	UG/KG	J		2140	SDIL	
SOI	METAL	20406032416	060104-SOI-02688-00.5	N	SW6010B	SW3050B	ARSENIC	1370 =	1.37	MG/KG	J		1070	SDIL	
SOI	METAL	20406032402	060104-SOI-02688-02.0	N	SW6010B	SW3050B	LITHIUM	2720 =	2720	UG/KG	J		2170	SDIL	
SOI	METAL	20406032402	060104-SOI-02688-02.0	N	SW6010B	SW3050B	ARSENIC	1850 =	1.85	MG/KG	J		1090	SDIL	
SOI	METAL	20406032404	060104-SOI-02688-04.0	N	SW6010B	SW3050B	LITHIUM	4640 =	4640	UG/KG	J		2250	SDIL	
SOI	METAL	20406032404	060104-SOI-02688-04.0	N	SW6010B	SW3050B	ARSENIC	3910 =	3.91	MG/KG	J		1130	SDIL	
SOI	METAL	20406032404	060104-SOI-02688-04.0	N	SW6010B	SW3050B	BERYLLIUM	253 =	0.253	MG/KG	J		225	SDIL	
SOI	METAL	20406032408	060104-SOI-02688-06.0	N	SW6010B	SW3050B	LITHIUM	4620 =	4620	UG/KG	J		2210	SDIL	
SOI	METAL	20406032408	060104-SOI-02688-06.0	N	SW6010B	SW3050B	ARSENIC	3610 =	3.61	MG/KG	J		1100	SDIL	
SOI	METAL	20406032408	060104-SOI-02688-06.0	N	SW6010B	SW3050B	BERYLLIUM	199 B	0.199	MG/KG	J		221	SDIL	
SOI	METAL	20406032406	060104-SOI-02688-07.0	N	SW6010B	SW3050B	LITHIUM	4230 =	4230	UG/KG	J		2250	SDIL	
SOI	METAL	20406032406	060104-SOI-02688-07.0	N	SW6010B	SW3050B	ARSENIC	3430 =	3.43	MG/KG	J		1120	SDIL	
SOI	METAL	20406032406	060104-SOI-02688-07.0	N	SW6010B	SW3050B	BERYLLIUM	170 B	0.17	MG/KG	J		225	SDIL	
SOI	METAL	20406032403	060104-SOI-02689-00.5	N	SW6010B	SW3050B	LITHIUM	3900 =	3900	UG/KG	J		2410	SDIL	
SOI	METAL	20406032403	060104-SOI-02689-00.5	N	SW6010B	SW3050B	ARSENIC	2730 =	2.73	MG/KG	J		1200	SDIL	
SOI	METAL	20406032403	060104-SOI-02689-00.5	N	SW6010B	SW3050B	BERYLLIUM	165 B	0.165	MG/KG	J		241	SDIL	
SOI	METAL	20406032415	060104-SOI-02689-02.0	N	SW6010B	SW3050B	LITHIUM	4850 =	4850	UG/KG	J		2260	SDIL	
SOI	METAL	20406032415	060104-SOI-02689-02.0	N	SW6010B	SW3050B	ARSENIC	3900 =	3.9	MG/KG	J		1130	SDIL	
SOI	METAL	20406032415	060104-SOI-02689-02.0	N	SW6010B	SW3050B	BERYLLIUM	208 B	0.208	MG/KG	J		226	SDIL	
SOI	METAL	20406032405	060104-SOI-02689-04.5	N	SW6010B	SW3050B	LITHIUM	6780 =	6780	UG/KG	J		2380	SDIL	
SOI	METAL	20406032405	060104-SOI-02689-04.5	N	SW6010B	SW3050B	ARSENIC	6450 =	6.45	MG/KG	J		1190	SDIL	
SOI	METAL	20406032405	060104-SOI-02689-04.5	N	SW6010B	SW3050B	BERYLLIUM	299 =	0.299	MG/KG	J		238	SDIL	
SOI	METAL	20406032409	060104-SOI-02690-00.5	N	SW6010B	SW3050B	LITHIUM	4830 =	4830	UG/KG	J		2350	SDIL	
SOI	METAL	20406032409	060104-SOI-02690-00.5	N	SW6010B	SW3050B	ARSENIC	3020 =	3.02	MG/KG	J		1170	SDIL	
SOI	METAL	20406032409	060104-SOI-02690-00.5	N	SW6010B	SW3050B	BERYLLIUM	219 B	0.219	MG/KG	J		235	SDIL	
SOI	METAL	20406032413	060104-SOI-02690-02.0	N	SW6010B	SW3050B	LITHIUM	4200 =	4200	UG/KG	J		2310	SDIL	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	
														VALIDATION REASON CODES
SOI	METAL	20406032413	060104-SOI-02690-02.0	N	SW6010B	SW3050B	ARSENIC	3480 =		3.48	MG/KG	J	1150	SDIL
SOI	METAL	20406032413	060104-SOI-02690-02.0	N	SW6010B	SW3050B	BERYLLIUM	242 =		0.242	MG/KG	J	231	SDIL
SOI	METAL	20406050901	060304-SOI-02703-00.5	N	SW6010B	SW3050B	ARSENIC	2350 =		2.35	MG/KG	J	1170	SDIL
SOI	METAL	20406050901	060304-SOI-02703-00.5	N	SW6010B	SW3050B	BERYLLIUM	139 B		0.139	MG/KG	J	233	SDIL
SOI	METAL	20406050901	060304-SOI-02703-00.5	N	SW6010B	SW3050B	CADMIUM	247 =		0.247	MG/KG	J	233	SDIL
SOI	METAL	20406050901	060304-SOI-02703-00.5	N	SW6010B	SW3050B	VANADIUM	4180 =		4.18	MG/KG	J	933	SDIL
SOI	METAL	20406050904	060304-SOI-02704-00.5	N	SW6010B	SW3050B	ARSENIC	2850 =		2.85	MG/KG	J	1180	SDIL
SOI	METAL	20406050904	060304-SOI-02704-00.5	N	SW6010B	SW3050B	BERYLLIUM	128 B		0.128	MG/KG	J	237	SDIL
SOI	METAL	20406050904	060304-SOI-02704-00.5	N	SW6010B	SW3050B	CADMIUM	297 =		0.297	MG/KG	J	237	SDIL
SOI	METAL	20406050904	060304-SOI-02704-00.5	N	SW6010B	SW3050B	VANADIUM	3790 =		3.79	MG/KG	J	948	SDIL
SOI	METAL	20406050905	060304-SOI-02704-00.5-D	FD	SW6010B	SW3050B	ARSENIC	3910 =		3.91	MG/KG	J	1320	SDIL
SOI	METAL	20406050905	060304-SOI-02704-00.5-D	FD	SW6010B	SW3050B	BERYLLIUM	181 B		0.181	MG/KG	J	264	SDIL
SOI	METAL	20406050905	060304-SOI-02704-00.5-D	FD	SW6010B	SW3050B	CADMIUM	862 =		0.862	MG/KG	J	264	SDIL
SOI	METAL	20406050905	060304-SOI-02704-00.5-D	FD	SW6010B	SW3050B	VANADIUM	5300 =		5.3	MG/KG	J	1050	SDIL
SOI	METAL	20406050903	060304-SOI-02706-00.5	N	SW6010B	SW3050B	VANADIUM	1940 =		1.94	MG/KG	J	861	SDIL
SOI	METAL	20406050902	060304-SOI-02705-00.5	N	SW6010B	SW3050B	ARSENIC	2980 =		2.98	MG/KG	J	1180	SDIL
SOI	METAL	20406050902	060304-SOI-02705-00.5	N	SW6010B	SW3050B	BERYLLIUM	138 B		0.138	MG/KG	J	237	SDIL
SOI	METAL	20406050902	060304-SOI-02705-00.5	N	SW6010B	SW3050B	CADMIUM	313 =		0.313	MG/KG	J	237	SDIL
SOI	METAL	20406050902	060304-SOI-02705-00.5	N	SW6010B	SW3050B	VANADIUM	4060 =		4.06	MG/KG	J	946	SDIL
SOI	METAL	20406050906	060304-SOI-02719-00.5	N	SW6010B	SW3050B	ARSENIC	4390 =		4.39	MG/KG	J	1270	SDIL
SOI	METAL	20406050906	060304-SOI-02719-00.5	N	SW6010B	SW3050B	BERYLLIUM	280 =		0.28	MG/KG	J	254	SDIL
SOI	METAL	20406050906	060304-SOI-02719-00.5	N	SW6010B	SW3050B	CADMIUM	349 =		0.349	MG/KG	J	254	SDIL
SOI	METAL	20406050906	060304-SOI-02719-00.5	N	SW6010B	SW3050B	VANADIUM	7940 =		7.94	MG/KG	J	1020	SDIL
SOI	METAL	20406050907	060304-SOI-02720-00.5	N	SW6010B	SW3050B	ARSENIC	5820 =		5.82	MG/KG	J	1180	SDIL
SOI	METAL	20406050907	060304-SOI-02720-00.5	N	SW6010B	SW3050B	BERYLLIUM	231 B		0.231	MG/KG	J	236	SDIL
SOI	METAL	20406050907	060304-SOI-02720-00.5	N	SW6010B	SW3050B	CADMIUM	340 =		0.34	MG/KG	J	236	SDIL
SOI	METAL	20406050910	060304-SOI-02721-00.5	N	SW6010B	SW3050B	ARSENIC	3070 =		3.07	MG/KG	J	1310	SDIL
SOI	METAL	20406050910	060304-SOI-02721-00.5	N	SW6010B	SW3050B	BERYLLIUM	348 =		0.348	MG/KG	J	262	SDIL
SOI	METAL	20406050910	060304-SOI-02721-00.5	N	SW6010B	SW3050B	CADMIUM	678 =		0.678	MG/KG	J	262	SDIL
SOI	METAL	20406050910	060304-SOI-02721-00.5	N	SW6010B	SW3050B	VANADIUM	9080 =		9.08	MG/KG	J	1050	SDIL
SOI	METAL	20406050907	060304-SOI-02720-00.5	N	SW6010B	SW3050B	VANADIUM	6660 =		6.66	MG/KG	J	944	SDIL
SOI	METAL	20406050911	060304-SOI-02722-00.5	N	SW6010B	SW3050B	ARSENIC	5260 =		5.26	MG/KG	J	1170	SDIL
SOI	METAL	20406050911	060304-SOI-02722-00.5	N	SW6010B	SW3050B	BERYLLIUM	217 B		0.217	MG/KG	J	235	SDIL
SOI	METAL	20406050911	060304-SOI-02722-00.5	N	SW6010B	SW3050B	CADMIUM	431 =		0.431	MG/KG	J	235	SDIL
SOI	METAL	20406050911	060304-SOI-02722-00.5	N	SW6010B	SW3050B	VANADIUM	6380 =		6.38	MG/KG	J	939	SDIL
SOI	METAL	20406050912	060404-SOI-02711-00.5	N	SW6010B	SW3050B	ARSENIC	8910 =		8.91	MG/KG	J	1410	SDIL
SOI	METAL	20406050912	060404-SOI-02711-00.5	N	SW6010B	SW3050B	BERYLLIUM	439 =		0.439	MG/KG	J	282	SDIL
SOI	METAL	20406050912	060404-SOI-02711-00.5	N	SW6010B	SW3050B	CADMIUM	594 =		0.594	MG/KG	J	282	SDIL
SOI	METAL	20406050912	060404-SOI-02711-00.5	N	SW6010B	SW3050B	VANADIUM	13400 =		13.4	MG/KG	J	1130	SDIL
SOI	METAL	20406050913	060404-SOI-02712-00.5	N	SW6010B	SW3050B	ARSENIC	6540 =		6.54	MG/KG	J	1250	SDIL
SOI	METAL	20406050913	060404-SOI-02712-00.5	N	SW6010B	SW3050B	BERYLLIUM	364 =		0.364	MG/KG	J	250	SDIL
SOI	METAL	20406050913	060404-SOI-02712-00.5	N	SW6010B	SW3050B	CADMIUM	479 =		0.479	MG/KG	J	250	SDIL
SOI	METAL	20406050913	060404-SOI-02712-00.5	N	SW6010B	SW3050B	VANADIUM	11100 =		11.1	MG/KG	J	1000	SDIL
SOI	METAL	20406050914	060404-SOI-02713-00.5	N	SW6010B	SW3050B	ARSENIC	7140 =		7.14	MG/KG	J	1480	SDIL
SOI	METAL	20406050914	060404-SOI-02713-00.5	N	SW6010B	SW3050B	BERYLLIUM	438 =		0.438	MG/KG	J	296	SDIL
SOI	METAL	20406050914	060404-SOI-02713-00.5	N	SW6010B	SW3050B	CADMIUM	610 =		0.61	MG/KG	J	296	SDIL
SOI	METAL	20406050915	060404-SOI-02714-00.5	N	SW6010B	SW3050B	ARSENIC	5920 =		5.92	MG/KG	J	1350	SDIL
SOI	METAL	20406050915	060404-SOI-02714-00.5	N	SW6010B	SW3050B	BERYLLIUM	363 =		0.363	MG/KG	J	270	SDIL
SOI	METAL	20406050915	060404-SOI-02714-00.5	N	SW6010B	SW3050B	CADMIUM	578 =		0.578	MG/KG	J	270	SDIL
SOI	METAL	20406050915	060404-SOI-02714-00.5	N	SW6010B	SW3050B	VANADIUM	10900 =		10.9	MG/KG	J	1080	SDIL
SOI	METAL	20406050914	060404-SOI-02713-00.5	N	SW6010B	SW3050B	BERYLLIUM	13600 =		13.6	MG/KG	J	1180	SDIL
SOI	METAL	20406050916	060404-SOI-02727-00.5	N	SW6010B	SW3050B	ARSENIC	14200 =		14.2	MG/KG	J	1350	SDIL
SOI	METAL	20406050916	060404-SOI-02727-00.5	N	SW6010B	SW3050B	BERYLLIUM	516 =		0.516	MG/KG	J	270	SDIL
SOI	METAL	20406050916	060404-SOI-02727-00.5	N	SW6010B	SW3050B	CADMIUM	847 =		0.847	MG/KG	J	270	SDIL
SOI	METAL	20406050916	060404-SOI-02727-00.5	N	SW6010B	SW3050B	VANADIUM	15700 =		15.7	MG/KG	J	1080	SDIL
SOI	METAL	20406050917	060404-SOI-02728-00.5	N	SW6010B	SW3050B	ARSENIC	4560 =		4.56	MG/KG	J	1270	SDIL
SOI	METAL	20406050917	060404-SOI-02728-00.5	N	SW6010B	SW3050B	BERYLLIUM	149 B		0.149	MG/KG	J	253	SDIL
SOI	METAL	20406050917	060404-SOI-02728-00.5	N	SW6010B	SW3050B	CADMIUM	196 B		0.196	MG/KG	J	253	SDIL
SOI	METAL	20406050917	060404-SOI-02728-00.5	N	SW6010B	SW3050B	VANADIUM	4110 =		4.11	MG/KG	J	1010	SDIL
SOI	METAL	20406050918	060404-SOI-02729-00.5	N	SW6010B	SW3050B	ARSENIC	12300 =		12.3	MG/KG	J	1420	SDIL
SOI	METAL	20406050918	060404-SOI-02729-00.5	N	SW6010B	SW3050B	BERYLLIUM	527 =		0.527	MG/KG	J	283	SDIL
SOI	METAL	20406050918	060404-SOI-02729-00.5	N	SW6010B	SW3050B	CADMIUM	897 =		0.897	MG/KG	J	283	SDIL
SOI	METAL	20406050918	060404-SOI-02729-00.5	N	SW6010B	SW3050B	VANADIUM	16100 =		16.1	MG/KG	J	1130	SDIL
SOI	METAL	20406050919	060404-SOI-02730-00.5	N	SW6010B	SW3050B	ARSENIC	6130 =		6.13	MG/KG	J	1300	SDIL
SOI	METAL	20406050919	060404-SOI-02730-00.5	N	SW6010B	SW3050B	BERYLLIUM	318 =		0.318	MG/KG	J	259	SDIL
SOI	METAL	20406050919	060404-SOI-02730-00.5	N	SW6010B	SW3050B	CADMIUM	502 =		0.502	MG/KG	J	259	SDIL
SOI	METAL	20406050919	060404-SOI-02730-00.5	N	SW6010B	SW3050B	VANADIUM	9780 =		9.78	MG/KG	J	1040	SDIL
SOI	METAL	20406050920	060404-SOI-02730-00.5-D	FD	SW6010B	SW3050B	ARSENIC	6490 =		6.49	MG/KG	J	1290	SDIL

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SOI	METAL	20406050920	060404-SOI-02730-00.5-D	FD	SW6010B	SW3050B	BERYLLIUM	320 =	0.32	MG/KG	J		258	SDIL
SOI	METAL	20406050920	060404-SOI-02730-00.5-D	FD	SW6010B	SW3050B	CADMIUM	512 =	0.512	MG/KG	J		258	SDIL
SOI	METAL	20406050920	060404-SOI-02730-00.5-D	FD	SW6010B	SW3050B	VANADIUM	9710 =	9.71	MG/KG	J		1030	SDIL
SOI	METAL	20406032414	060104-SOI-02687-00.5	N	SW6010B	SW3050B	LITHIUM	1260 B	1260	UG/KG	J		2370	SDIL
SOI	METAL	20406032414	060104-SOI-02687-00.5	N	SW6010B	SW3050B	ARSENIC	531 B	0.531	MG/KG	J		1180	SDIL
SOI	METAL	20406032414	060104-SOI-02687-00.5	N	SW6010B	SW3050B	BERYLLIUM	169 B	0.169	MG/KG	J		237	SDIL
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	BERYLLIUM	407 =	0.407	MG/KG	J		268	SDIL
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	CADMIUM	426 =	0.426	MG/KG	J		268	SDIL
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	COBALT	3900 =	3.9	MG/KG	J		536	SDIL
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	VANADIUM	14700 =	14.7	MG/KG	J		1070	SDIL
SOI	METAL	20406042505	060204-SOI-02698-00.5	N	SW6010B	SW3050B	ZINC	34700 =	34700	UG/KG	J		1070	SDIL
SOI	METAL	20406032401	060104-SOI-02687-02.0	N	SW6010B	SW3050B	BERYLLIUM	84.7 B	0.0847	MG/KG	UJ		233	SDIL,CCBL
SOI	METAL	20406032407	060104-SOI-02687-04.5	N	SW6010B	SW3050B	BERYLLIUM	152 B	0.152	MG/KG	UJ		248	SDIL,CCBL
SOI	METAL	20406032407	060104-SOI-02687-04.5	N	SW6010B	SW3050B	CADMIUM	283 =	0.283	MG/KG	UJ		248	SDIL,CCBL
SOI	METAL	20406032416	060104-SOI-02688-00.5	N	SW6010B	SW3050B	BERYLLIUM	65.3 B	0.0653	MG/KG	UJ		214	SDIL,CCBL
SOI	METAL	20406032402	060104-SOI-02688-02.0	N	SW6010B	SW3050B	BERYLLIUM	122 B	0.122	MG/KG	UJ		217	SDIL,CCBL
SOI	METAL	20406032404	060104-SOI-02688-04.0	N	SW6010B	SW3050B	CADMIUM	254 =	0.254	MG/KG	UJ		225	SDIL,CCBL
SOI	METAL	20406032408	060104-SOI-02688-06.0	N	SW6010B	SW3050B	CADMIUM	200 B	0.2	MG/KG	UJ		221	SDIL,CCBL
SOI	METAL	20406032403	060104-SOI-02689-00.5	N	SW6010B	SW3050B	CADMIUM	221 B	0.221	MG/KG	UJ		241	SDIL,CCBL
SOI	METAL	20406032415	060104-SOI-02689-02.0	N	SW6010B	SW3050B	CADMIUM	219 B	0.219	MG/KG	UJ		226	SDIL,CCBL
SOI	METAL	20406032405	060104-SOI-02689-04.5	N	SW6010B	SW3050B	CADMIUM	299 =	0.299	MG/KG	UJ		238	SDIL,CCBL
SOI	METAL	20406032413	060104-SOI-02690-02.0	N	SW6010B	SW3050B	CADMIUM	235 =	0.235	MG/KG	UJ		235	SDIL,CCBL
SOI	METAL	20406050903	060304-SOI-02706-00.5	N	SW6010B	SW3050B	ARSENIC	1470 =	1.47	MG/KG	UJ		1080	SDIL,CCBL
SOI	METAL	20406050903	060304-SOI-02706-00.5	N	SW6010B	SW3050B	BERYLLIUM	71.8 B	0.0718	MG/KG	UJ		215	SDIL,CCBL
SOI	METAL	20406050903	060304-SOI-02706-05.5	N	SW6010B	SW3050B	CADMIUM	124 B	0.124	MG/KG	UJ		215	SDIL,CCBL
SOI	METAL	20406032401	060104-SOI-02687-02.0	N	SW6010B	SW3050B	CADMIUM	89.2 B	0.0892	MG/KG	UJ		233	SDIL,CCBL,LBL
SOI	METAL	20406032412	060104-SOI-02687-00.5-D	FD	SW6010B	SW3050B	CADMIUM	130 B	0.13	MG/KG	UJ		233	SDIL,CCBL,LBL
SOI	METAL	20406032416	060104-SOI-02688-00.5	N	SW6010B	SW3050B	CADMIUM	87.4 B	0.0874	MG/KG	UJ		214	SDIL,CCBL,LBL
SOI	METAL	20406032402	060104-SOI-02688-02.0	N	SW6010B	SW3050B	CADMIUM	136 B	0.136	MG/KG	UJ		217	SDIL,CCBL,LBL
SOI	METAL	20406032406	060104-SOI-02688-07.0	N	SW6010B	SW3050B	CADMIUM	177 B	0.177	MG/KG	UJ		225	SDIL,CCBL,LBL
SOI	METAL	20406032414	060104-SOI-02687-00.5	N	SW6010B	SW3050B	CADMIUM	133 B	0.133	MG/KG	UJ		237	SDIL,CCBL,LBL
SOI	METAL	20406032401	060104-SOI-02687-02.0	N	SW6010B	SW3050B	TIN	1690 B	1.69	MG/KG	UJ		4670	SDIL,LBL
SOI	METAL	20406032412	060104-SOI-02687-00.5-D	FD	SW6010B	SW3050B	TIN	1290 B	1.29	MG/KG	UJ		4660	SDIL,LBL
SOI	METAL	20406032407	060104-SOI-02687-04.5	N	SW6010B	SW3050B	TIN	1950 B	1.95	MG/KG	UJ		4960	SDIL,LBL
SOI	METAL	20406032416	060104-SOI-02688-00.5	N	SW6010B	SW3050B	TIN	1440 B	1.44	MG/KG	UJ		4280	SDIL,LBL
SOI	METAL	20406032402	060104-SOI-02688-02.0	N	SW6010B	SW3050B	TIN	1020 B	1.02	MG/KG	UJ		4340	SDIL,LBL
SOI	METAL	20406032404	060104-SOI-02688-04.0	N	SW6010B	SW3050B	TIN	1170 B	1.17	MG/KG	UJ		4500	SDIL,LBL
SOI	METAL	20406032408	060104-SOI-02688-06.0	N	SW6010B	SW3050B	TIN	1100 B	1.1	MG/KG	UJ		4420	SDIL,LBL
SOI	METAL	20406032406	060104-SOI-02688-07.0	N	SW6010B	SW3050B	TIN	1290 B	1.29	MG/KG	UJ		4500	SDIL,LBL
SOI	METAL	20406032403	060104-SOI-02689-00.5	N	SW6010B	SW3050B	TIN	1510 B	1.51	MG/KG	UJ		4820	SDIL,LBL
SOI	METAL	20406032415	060104-SOI-02689-02.0	N	SW6010B	SW3050B	TIN	1410 B	1.41	MG/KG	UJ		4530	SDIL,LBL
SOI	METAL	20406032405	060104-SOI-02689-04.5	N	SW6010B	SW3050B	TIN	1390 B	1.39	MG/KG	UJ		4750	SDIL,LBL
SOI	METAL	20406032409	060104-SOI-02690-00.5	N	SW6010B	SW3050B	TIN	1150 B	1.15	MG/KG	UJ		4690	SDIL,LBL
SOI	METAL	20406032413	060104-SOI-02690-02.0	N	SW6010B	SW3050B	TIN	1370 B	1.37	MG/KG	UJ		4610	SDIL,LBL
SOI	METAL	20406032414	060104-SOI-02687-00.5	N	SW6010B	SW3050B	TIN	1360 B	1.36	MG/KG	UJ		4730	SDIL,LBL
SO	PEST	20406050904	060304-SOI-02704-00.5	N	SW8081A	SW3510C	Endrin	12.2 =	12.2	UG/KG	J		11.8	CCVH
SO	PEST	20406050911	060304-SOI-02722-00.5	N	SW8081A	SW3510C	4,4'-DDD	13.6 =	13.6	UG/KG	J		11.7	CCVH
SO	PEST	20406050914	060404-SOI-02713-00.5	N	SW8081A	SW3510C	4,4'-DDT	258 =	258	UG/KG	J		74	CCVH,SSH
SO	PEST	20406050916	060404-SOI-02727-00.5	N	SW8081A	SW3510C	4,4'-DDT	129 =	129	UG/KG	J		67.6	CCVH,SSH
SO	PEST	20406050918	060404-SOI-02729-00.5	N	SW8081A	SW3510C	4,4'-DDT	156 =	156	UG/KG	J		70.8	CCVH,SSH
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Endrin	19.9 =	19.9	UG/KG	J		13.2	CCVH,SSL
SO	PEST	20406032401	060104-SOI-02687-02.0	N	SW8141	SW3510C	Famphur	29.2 U	29.2	UG/KG	UJ		29.2	CCVL
SO	PEST	20406032402	060104-SOI-02688-02.0	N	SW8141	SW3510C	Famphur	27.3 U	27.3	UG/KG	UJ		27.3	CCVL
SO	PEST	20406032403	060104-SOI-02689-00.5	N	SW8141	SW3510C	Famphur	30.1 U	30.1	UG/KG	UJ		30.1	CCVL
SO	PEST	20406032404	060104-SOI-02688-04.0	N	SW8141	SW3510C	Famphur	28.1 U	28.1	UG/KG	UJ		28.1	CCVL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8141	SW3510C	Famphur	30 U	30	UG/KG	UJ		30	CCVL
SO	PEST	20406032406	060104-SOI-02688-07.0	N	SW8141	SW3510C	Famphur	28.1 U	28.1	UG/KG	UJ		28.1	CCVL
SO	PEST	20406032407	060104-SOI-02687-04.5	N	SW8141	SW3510C	Famphur	31.2 U	31.2	UG/KG	UJ		31.2	CCVL
SO	PEST	20406032408	060104-SOI-02688-06.0	N	SW8081A	SW3510C	Endosulfan I	11.1 U	11.1	UG/KG	UJ		11.1	CCVL
SO	PEST	20406032408	060104-SOI-02688-06.0	N	SW8141	SW3510C	Famphur	27.8 U	27.8	UG/KG	UJ		27.8	CCVL
SO	PEST	20406032408	060104-SOI-02688-06.0	N	SW8081A	SW3510C	Heptachlor	11.1 U	11.1	UG/KG	UJ		11.1	CCVL
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8141	SW3510C	Famphur	29.3 U	29.3	UG/KG	UJ		29.3	CCVL
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8141	SW3510C	Famphur	28.8 U	28.8	UG/KG	UJ		28.8	CCVL
SO	PEST	20406032414	060104-SOI-02687-00.5	N	SW8141	SW3510C	Famphur	29.6 U	29.6	UG/KG	UJ		29.6	CCVL
SO	PEST	20406032415	060104-SOI-02689-02.0	N	SW8141	SW3510C	Famphur	28.5 U	28.5	UG/KG	UJ		28.5	CCVL
SO	PEST	20406032416	060104-SOI-02688-00.5	N	SW8141	SW3510C	Famphur	26.7 U	26.7	UG/KG	UJ		26.7	CCVL
SO	PEST	20406042501	060204-SOI-02695-00.5	N	SW8141	SW3510C	Famphur	32.2 U	32.2	UG/KG	UJ		32.2	CCVL

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	PEST	20406042502	060204-SOI-02696-00.5	N	SW8141	SW3510C	Famphur	35.1	U	35.1	UG/KG	UJ	35.1	CCVL
SO	PEST	20406042503	060204-SOI-02697-00.5	N	SW8141	SW3510C	Famphur	33.8	U	33.8	UG/KG	UJ	33.8	CCVL
SO	PEST	20406042504	060204-SOI-02697-00.5-D	FD	SW8141	SW3510C	Famphur	34.2	U	34.2	UG/KG	UJ	34.2	CCVL
SO	PEST	20406042505	060204-SOI-02698-00.5	N	SW8141	SW3510C	Famphur	33.5	U	33.5	UG/KG	UJ	33.5	CCVL
SO	PEST	20406042507	060204-SOI-02695-01.5	N	SW8141	SW3510C	Famphur	29.4	U	29.4	UG/KG	UJ	29.4	CCVL
SO	PEST	20406042508	060204-SOI-02696-04.0	N	SW8141	SW3510C	Famphur	31.2	U	31.2	UG/KG	UJ	31.2	CCVL
SO	PEST	20406042510	060204-SOI-02697-02.5	N	SW8141	SW3510C	Famphur	29.1	U	29.1	UG/KG	UJ	29.1	CCVL
SO	PEST	20406042510	060204-SOI-02697-02.5	N	SW8141	SW3510C	Thionazine	40.7	U	40.7	UG/KG	UJ	40.7	CCVL
SO	PEST	20406042511	060204-SOI-02696-02.0	N	SW8141	SW3510C	Famphur	33.7	U	33.7	UG/KG	UJ	33.7	CCVL
SO	PEST	20406042511	060204-SOI-02696-02.0	N	SW8141	SW3510C	Thionazine	47.2	U	47.2	UG/KG	UJ	47.2	CCVL
SO	PEST	20406050901	060304-SOI-02703-00.5	N	SW8141	SW3510C	Famphur	29.4	U	29.4	UG/KG	UJ	29.4	CCVL
SO	PEST	20406050901	060304-SOI-02703-00.5	N	SW8141	SW3510C	Thionazine	41.2	U	41.2	UG/KG	UJ	41.2	CCVL
SO	PEST	20406050904	060304-SOI-02704-00.5	N	SW8141	SW3510C	Famphur	29.6	U	29.6	UG/KG	UJ	29.6	CCVL
SO	PEST	20406050904	060304-SOI-02704-00.5	N	SW8141	SW3510C	Thionazine	41.5	U	41.5	UG/KG	UJ	41.5	CCVL
SO	PEST	20406050907	060304-SOI-02720-00.5	N	SW8141	SW3510C	Thionazine	41.3	U	41.3	UG/KG	UJ	41.3	CCVL
SO	PEST	20406050910	060304-SOI-02721-00.5	N	SW8141	SW3510C	Famphur	33	U	33	UG/KG	UJ	33	CCVL
SO	PEST	20406050911	060304-SOI-02722-00.5	N	SW8141	SW3510C	Famphur	29.4	U	29.4	UG/KG	UJ	29.4	CCVL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8141	SW3510C	Famphur	35.3	U	35.3	UG/KG	UJ	35.3	CCVL
SO	PEST	20406050913	060404-SOI-02712-00.5	N	SW8141	SW3510C	Famphur	31.3	U	31.3	UG/KG	UJ	31.3	CCVL
SO	PEST	20406050914	060404-SOI-02713-00.5	N	SW8141	SW3510C	Famphur	37	U	37	UG/KG	UJ	37	CCVL
SO	PEST	20406050915	060404-SOI-02714-00.5	N	SW8141	SW3510C	Famphur	33.7	U	33.7	UG/KG	UJ	33.7	CCVL
SO	PEST	20406050916	060404-SOI-02727-00.5	N	SW8141	SW3510C	Famphur	33.8	U	33.8	UG/KG	UJ	33.8	CCVL
SO	PEST	20406050917	060404-SOI-02728-00.5	N	SW8081A	SW3510C	BP-6(PBB)	63.8	U	63.8	UG/KG	UJ	63.8	CCVL
SO	PEST	20406050918	060404-SOI-02729-00.5	N	SW8141	SW3510C	Famphur	31.9	U	31.9	UG/KG	UJ	31.9	CCVL
SO	PEST	20406050919	060404-SOI-02730-00.5	N	SW8141	SW3510C	Famphur	35.4	U	35.4	UG/KG	UJ	35.4	CCVL
SO	PEST	20406050919	060404-SOI-02730-00.5	N	SW8141	SW3510C	Famphur	32.4	U	32.4	UG/KG	UJ	32.4	CCVL
SO	PEST	20406050920	060404-SOI-02730-00.5-D	FD	SW8141	SW3510C	Famphur	32.3	U	32.3	UG/KG	UJ	32.3	CCVL
SED	PEST	20406302301	062804-SED-02691-00.2	N	SW8081A	SW3510C	4,4'-DDT	11.7	U	11.7	UG/KG	UJ	11.7	CCVL
SED	PEST	20406302301	062804-SED-02691-00.2	N	SW8081A	SW3510C	Disulfoton	29.3	U	29.3	UG/KG	UJ	29.3	CCVL
SED	PEST	20406302302	062804-SED-02692-00.2	N	SW8081A	SW3510C	4,4'-DDT	12.2	U	12.2	UG/KG	UJ	12.2	CCVL
SED	PEST	20406302302	062804-SED-02692-00.2	N	SW8081A	SW3510C	Methoxychlor	30.6	U	30.6	UG/KG	UJ	30.6	CCVL
SED	PEST	20406302303	062804-SED-02693-00.2	N	SW8141	SW3510C	0,0-Triethylphosphorothioate	41.5	U	41.5	UG/KG	UJ	41.5	CCVL
SED	PEST	20406302303	062804-SED-02693-00.2	N	SW8081A	SW3510C	4,4'-DDT	11.9	U	11.9	UG/KG	UJ	11.9	CCVL
SED	PEST	20406302303	062804-SED-02693-00.2	N	SW8141	SW3510C	Disulfoton	29.6	U	29.6	UG/KG	UJ	29.6	CCVL
SED	PEST	20406302303	062804-SED-02693-00.2	N	SW8081A	SW3510C	Methoxychlor	29.6	U	29.6	UG/KG	UJ	29.6	CCVL
SED	PEST	20406302303	062804-SED-02693-00.2	N	SW8141	SW3510C	Phorate	29.6	U	29.6	UG/KG	UJ	29.6	CCVL
SED	PEST	20406302303	062804-SED-02693-00.2	N	SW8141	SW3510C	Sulfotep	41.5	U	41.5	UG/KG	UJ	41.5	CCVL
SED	PEST	20406302303	062804-SED-02693-00.2	N	SW8141	SW3510C	Thionazine	41.5	U	41.5	UG/KG	UJ	41.5	CCVL
SED	PEST	20406302304	062804-SED-02694-00.2	N	SW8141	SW3510C	0,0-Triethylphosphorothioate	38.8	U	38.8	UG/KG	UJ	38.8	CCVL
SED	PEST	20406302304	062804-SED-02694-00.2	N	SW8081A	SW3510C	4,4'-DDT	11.1	U	11.1	UG/KG	UJ	11.1	CCVL
SED	PEST	20406302304	062804-SED-02694-00.2	N	SW8141	SW3510C	Disulfoton	27.7	U	27.7	UG/KG	UJ	27.7	CCVL
SED	PEST	20406302304	062804-SED-02694-00.2	N	SW8081A	SW3510C	Methoxychlor	27.7	U	27.7	UG/KG	UJ	27.7	CCVL
SED	PEST	20406302304	062804-SED-02694-00.2	N	SW8141	SW3510C	Phorate	27.7	U	27.7	UG/KG	UJ	27.7	CCVL
SED	PEST	20406302304	062804-SED-02694-00.2	N	SW8141	SW3510C	Sulfotep	38.8	U	38.8	UG/KG	UJ	38.8	CCVL
SED	PEST	20406302304	062804-SED-02694-00.2	N	SW8141	SW3510C	Thionazine	38.8	U	38.8	UG/KG	UJ	38.8	CCVL
SED	PEST	20406302305	062904-SED-02699-00.2	N	SW8141	SW3510C	0,0,0-Triethylphosphorothioate	39.8	U	39.8	UG/KG	UJ	39.8	CCVL
SED	PEST	20406302305	062904-SED-02699-00.2	N	SW8081A	SW3510C	4,4'-DDT	15.5	=	15.5	UG/KG	J	11.4	CCVL
SED	PEST	20406302305	062904-SED-02699-00.2	N	SW8141	SW3510C	Disulfoton	28.5	U	28.5	UG/KG	UJ	28.5	CCVL
SED	PEST	20406302305	062904-SED-02699-00.2	N	SW8081A	SW3510C	Methoxychlor	28.5	U	28.5	UG/KG	UJ	28.5	CCVL
SED	PEST	20406302305	062904-SED-02699-00.2	N	SW8141	SW3510C	Phorate	28.5	U	28.5	UG/KG	UJ	28.5	CCVL
SED	PEST	20406302305	062904-SED-02699-00.2	N	SW8141	SW3510C	Sulfotep	39.8	U	39.8	UG/KG	UJ	39.8	CCVL
SED	PEST	20406302305	062904-SED-02699-00.2	N	SW8141	SW3510C	Thionazine	39.8	U	39.8	UG/KG	UJ	39.8	CCVL
SED	PEST	20406302306	062904-SED-02700-00.2	N	SW8141	SW3510C	0,0,0-Triethylphosphorothioate	39.7	U	39.7	UG/KG	UJ	39.7	CCVL
SED	PEST	20406302306	062904-SED-02700-00.2	N	SW8081A	SW3510C	4,4'-DDT	11.3	U	11.3	UG/KG	UJ	11.3	CCVL
SED	PEST	20406302306	062904-SED-02700-00.2	N	SW8141	SW3510C	Disulfoton	28.4	U	28.4	UG/KG	UJ	28.4	CCVL
SED	PEST	20406302306	062904-SED-02700-00.2	N	SW8081A	SW3510C	Methoxychlor	28.4	U	28.4	UG/KG	UJ	28.4	CCVL
SED	PEST	20406302306	062904-SED-02700-00.2	N	SW8141	SW3510C	Phorate	28.4	U	28.4	UG/KG	UJ	28.4	CCVL
SED	PEST	20406302306	062904-SED-02700-00.2	N	SW8141	SW3510C	Sulfotep	39.7	U	39.7	UG/KG	UJ	39.7	CCVL
SED	PEST	20406302306	062904-SED-02700-00.2	N	SW8141	SW3510C	Thionazine	39.7	U	39.7	UG/KG	UJ	39.7	CCVL
SED	PEST	20406302307	062904-SED-02701-00.2	N	SW8141	SW3510C	0,0,0-Triethylphosphorothioate	42.7	U	42.7	UG/KG	UJ	42.7	CCVL
SED	PEST	20406302307	062904-SED-02701-00.2	N	SW8141	SW3510C	Disulfoton	30.5	U	30.5	UG/KG	UJ	30.5	CCVL
SED	PEST	20406302307	062904-SED-02701-00.2	N	SW8081A	SW3510C	Methoxychlor	30.5	U	30.5	UG/KG	UJ	30.5	CCVL
SED	PEST	20406302307	062904-SED-02701-00.2	N	SW8141	SW3510C	Phorate	30.5	U	30.5	UG/KG	UJ	30.5	CCVL
SED	PEST	20406302307	062904-SED-02701-00.2	N	SW8141	SW3510C	Sulfotep	42.7	U	42.7	UG/KG	UJ	42.7	CCVL
SED	PEST	20406302308	062904-SED-02701-00.2	N	SW8141	SW3510C	Thionazine	42.7	U	42.7	UG/KG	UJ	42.7	CCVL
SED	PEST	20406302308	062904-SED-02702-00.2	N	SW8141	SW3510C	0,0,0-Triethylphosphorothioate	38.8	U	38.8	UG/KG	UJ	38.8	CCVL
SED	PEST	20406302308	062904-SED-02702-00.2	N	SW8081A	SW3510C	4,4'-DDT	11.1	U	11.1	UG/KG	UJ	11.1	CCVL
SED	PEST	20406302308	062904-SED-02702-00.2	N	SW8141	SW3510C	Disulfoton	27.7	U	27.7	UG/KG	UJ	27.7	CCVL

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT		VALIDATION REASON CODES
SED	PEST	20406302308	062904-SED-02702-00.2	N	SW8081A	SW3510C	Methoxychlor	27.7	U	27.7	UG/KG	UJ	27.7	CCVL	
SED	PEST	20406302308	062904-SED-02702-00.2	N	SW8141	SW3510C	Phorate	27.7	U	27.7	UG/KG	UJ	27.7	CCVL	
SED	PEST	20406302308	062904-SED-02702-00.2	N	SW8141	SW3510C	Sulfotep	38.8	U	38.8	UG/KG	UJ	38.8	CCVL	
SED	PEST	20406302308	062904-SED-02702-00.2	N	SW8141	SW3510C	Thionazine	38.8	U	38.8	UG/KG	UJ	38.8	CCVL	
SED	PEST	20406302309	062904-SED-02731-00.2	N	SW8141	SW3510C	0,0,0-Triethylphosphorothioate	41.9	U	41.9	UG/KG	UJ	41.9	CCVL	
SED	PEST	20406302309	062904-SED-02731-00.2	N	SW8081A	SW3510C	4,4'-DDT	12	U	12	UG/KG	UJ	12	CCVL	
SED	PEST	20406302309	062904-SED-02731-00.2	N	SW8141	SW3510C	Disulfoton	29.9	U	29.9	UG/KG	UJ	29.9	CCVL	
SED	PEST	20406302309	062904-SED-02731-00.2	N	SW8081A	SW3510C	Methoxychlor	29.9	U	29.9	UG/KG	UJ	29.9	CCVL	
SED	PEST	20406302309	062904-SED-02731-00.2	N	SW8141	SW3510C	Phorate	29.9	U	29.9	UG/KG	UJ	29.9	CCVL	
SED	PEST	20406302309	062904-SED-02731-00.2	N	SW8141	SW3510C	Sulfotep	41.9	U	41.9	UG/KG	UJ	41.9	CCVL	
SED	PEST	20406302309	062904-SED-02731-00.2	N	SW8141	SW3510C	Thionazine	41.9	U	41.9	UG/KG	UJ	41.9	CCVL	
SED	PEST	20406302312	062904-SED-02732-00.2	N	SW8141	SW3510C	0,0,0-Triethylphosphorothioate	44.2	U	44.2	UG/KG	UJ	44.2	CCVL	
SED	PEST	20406302312	062904-SED-02732-00.2	N	SW8081A	SW3510C	4,4'-DDT	12.6	U	12.6	UG/KG	UJ	12.6	CCVL	
SED	PEST	20406302312	062904-SED-02732-00.2	N	SW8141	SW3510C	Disulfoton	31.6	U	31.6	UG/KG	UJ	31.6	CCVL	
SED	PEST	20406302312	062904-SED-02732-00.2	N	SW8081A	SW3510C	Methoxychlor	31.6	U	31.6	UG/KG	UJ	31.6	CCVL	
SED	PEST	20406302312	062904-SED-02732-00.2	N	SW8141	SW3510C	Phorate	31.6	U	31.6	UG/KG	UJ	31.6	CCVL	
SED	PEST	20406302312	062904-SED-02732-00.2	N	SW8141	SW3510C	Sulfotep	44.2	U	44.2	UG/KG	UJ	44.2	CCVL	
SED	PEST	20406302312	062904-SED-02732-00.2	N	SW8141	SW3510C	Thionazine	44.2	U	44.2	UG/KG	UJ	44.2	CCVL	
SED	PEST	20406302313	062904-SED-02733-00.2	N	SW8081A	SW3510C	4,4'-DDT	12.1	U	12.1	UG/KG	UJ	12.1	CCVL	
SED	PEST	20406302313	062904-SED-02733-00.2	N	SW8081A	SW3510C	Methoxychlor	30.2	U	30.2	UG/KG	UJ	30.2	CCVL	
SED	PEST	20406302313	062904-SED-02733-00.2	N	SW8141	SW3510C	Phorate	30.2	U	30.2	UG/KG	UJ	30.2	CCVL	
SED	PEST	20406302314	062904-SED-02734-00.2	N	SW8081A	SW3510C	4,4'-DDT	11.8	U	11.8	UG/KG	UJ	11.8	CCVL	
SED	PEST	20406302314	062904-SED-02734-00.2	N	SW8081A	SW3510C	Methoxychlor	29.5	U	29.5	UG/KG	UJ	29.5	CCVL	
SED	PEST	20406302314	062904-SED-02734-00.2	N	SW8141	SW3510C	Phorate	29.5	U	29.5	UG/KG	UJ	29.5	CCVL	
SED	PEST	20406302315	062904-SED-02734-00.2-D	FD	SW8081A	SW3510C	4,4'-DDT	11.8	U	11.8	UG/KG	UJ	11.8	CCVL	
SED	PEST	20406302315	062904-SED-02734-00.2-D	FD	SW8081A	SW3510C	Methoxychlor	29.4	U	29.4	UG/KG	UJ	29.4	CCVL	
SED	PEST	20406302315	062904-SED-02734-00.2-D	FD	SW8141	SW3510C	Phorate	29.4	U	29.4	UG/KG	UJ	29.4	CCVL	
SED	PEST	20407020808	063004-SED-02715-00.2	N	SW8141	SW3510C	Phorate	32.1	U	32.1	UG/KG	UJ	32.1	CCVL	
SED	PEST	20407020809	063004-SED-02716-00.2	N	SW8141	SW3510C	Phorate	28.7	U	28.7	UG/KG	UJ	28.7	CCVL	
SED	PEST	20407020810	063004-SED-02717-00.2	N	SW8141	SW3510C	Phorate	32	U	32	UG/KG	UJ	32	CCVL	
SED	PEST	20407020811	063004-SED-02718-00.2	N	SW8141	SW3510C	Phorate	30.7	U	30.7	UG/KG	UJ	30.7	CCVL	
SED	PEST	20407020812	063004-SED-02723-00.2	N	SW8141	SW3510C	Phorate	29.6	U	29.6	UG/KG	UJ	29.6	CCVL	
SED	PEST	20407020813	063004-SED-02724-00.2	N	SW8141	SW3510C	Phorate	28.3	U	28.3	UG/KG	UJ	28.3	CCVL	
SED	PEST	20407020814	063004-SED-02725-00.2	N	SW8141	SW3510C	Phorate	31.1	U	31.1	UG/KG	UJ	31.1	CCVL	
SED	PEST	20407020815	063004-SED-02726-00.2	N	SW8141	SW3510C	Phorate	30.2	U	30.2	UG/KG	UJ	30.2	CCVL	
SED	PEST	20407020816	063004-SED-02726-00.2-D	FD	SW8141	SW3510C	Phorate	30.3	U	30.3	UG/KG	UJ	30.3	CCVL	
SO	PEST	2040650907	060304-SOI-02720-00.5	N	SW8141	SW3510C	Famphur	29.5	U	29.5	UG/KG	UJ	29.5	CCVL, MSL	
SO	PEST	2040650909	060304-SOI-02720-00.5	N	SW8081A	SW3510C	Endosulfan I	23.5	U	23.5	UG/KG	UJ	23.5	CCVL, SSL	
SO	PEST	2040650909	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Heptachlor	23.5	U	23.5	UG/KG	UJ	23.5	CCVL, SSL	
SO	PEST	2040650909	060104-SOI-02687-00.5-D	FD	SW8141	SW3510C	Famphur	29.4	U	29.4	UG/KG	UJ	29.4	CCVL, SSL	
SO	PEST	2040650910	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Endosulfan I	11.5	U	11.5	UG/KG	UJ	11.5	CCVL, SSL	
SO	PEST	2040650910	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Heptachlor	11.5	U	11.5	UG/KG	UJ	11.5	CCVL, SSL	
SO	PEST	2040650902	060304-SOI-02705-00.5	N	SW8141	SW3510C	Famphur	29.6	U	29.6	UG/KG	UJ	29.6	CCVL, SSL	
SO	PEST	2040650902	060304-SOI-02705-00.5	N	SW8141	SW3510C	Thionazine	41.4	U	41.4	UG/KG	UJ	41.4	CCVL, SSL	
SO	PEST	2040650903	060304-SOI-02706-00.5	N	SW8141	SW3510C	Famphur	27.1	U	27.1	UG/KG	UJ	27.1	CCVL, SSL	
SO	PEST	2040650903	060304-SOI-02706-00.5	N	SW8141	SW3510C	Thionazine	38	U	38	UG/KG	UJ	38	CCVL, SSL	
SO	PEST	2040650905	060304-SOI-02704-00.5-D	FD	SW8141	SW3510C	Famphur	33	U	33	UG/KG	UJ	33	CCVL, SSL	
SO	PEST	2040650905	060304-SOI-02704-00.5-D	FD	SW8141	SW3510C	Thionazine	46.1	U	46.1	UG/KG	UJ	46.1	CCVL, SSL	
SO	PEST	2040650906	060304-SOI-02719-00.5	N	SW8141	SW3510C	Famphur	31.7	U	31.7	UG/KG	UJ	31.7	CCVL, SSL	
SO	PEST	2040650906	060304-SOI-02719-00.5	N	SW8141	SW3510C	Thionazine	44.4	U	44.4	UG/KG	UJ	44.4	CCVL, SSL	
SED	PEST	20406302301	062804-SED-02691-00.2	N	SW8081A	SW3510C	alpha-BHC	11.7	U	11.7	UG/KG	UJ	11.7	ICRSD	
SED	PEST	20406302302	062804-SED-02692-00.2	N	SW8081A	SW3510C	alpha-BHC	12.2	U	12.2	UG/KG	UJ	12.2	ICRSD	
SED	PEST	20406302303	062804-SED-02693-00.2	N	SW8081A	SW3510C	alpha-BHC	11.9	U	11.9	UG/KG	UJ	11.9	ICRSD	
SED	PEST	20406302304	062804-SED-02694-00.2	N	SW8081A	SW3510C	alpha-BHC	11.1	U	11.1	UG/KG	UJ	11.1	ICRSD	
SED	PEST	20406302305	062904-SED-02699-00.2	N	SW8081A	SW3510C	alpha-BHC	11.4	U	11.4	UG/KG	UJ	11.4	ICRSD	
SED	PEST	20406302306	062904-SED-02700-00.2	N	SW8081A	SW3510C	alpha-BHC	11.3	U	11.3	UG/KG	UJ	11.3	ICRSD	
SED	PEST	20406302307	062904-SED-02701-00.2	N	SW8081A	SW3510C	alpha-BHC	12.2	U	12.2	UG/KG	UJ	12.2	ICRSD	
SED	PEST	20406302308	062904-SED-02702-00.2	N	SW8081A	SW3510C	alpha-BHC	11.1	U	11.1	UG/KG	UJ	11.1	ICRSD	
SED	PEST	20406302309	062904-SED-02731-00.2	N	SW8081A	SW3510C	alpha-BHC	12	U	12	UG/KG	UJ	12	ICRSD	
SED	PEST	20406302312	062904-SED-02732-00.2	N	SW8081A	SW3510C	alpha-BHC	12.6	U	12.6	UG/KG	UJ	12.6	ICRSD	
SED	PEST	20406302313	062904-SED-02733-00.2	N	SW8081A	SW3510C	alpha-BHC	12.1	U	12.1	UG/KG	UJ	12.1	ICRSD	
SED	PEST	20406302314	062904-SED-02734-00.2	N	SW8081A	SW3510C	alpha-BHC	11.8	U	11.8	UG/KG	UJ	11.8	ICRSD	
SED	PEST	20406302315	062904-SED-02734-00.2-D	FD	SW8081A	SW3510C	alpha-BHC	11.8	U	11.8	UG/KG	UJ	11.8	ICRSD	
SED	PEST	20407020802	063004-SED-02708-00.2	N	SW8081A	SW3510C	alpha-BHC	63	U	63	UG/KG	UJ	63	ICRSD	
SED	PEST	20407020803	063004-SED-02708-00.2-D	FD	SW8081A	SW3510C	alpha-BHC	63.1	U	63.1	UG/KG	UJ	63.1	ICRSD	
SED	PEST	20407020803	063004-SED-02708-00.2-D	FD	SW8081A	SW3510C	delta-BHC	63.1	U	63.1	UG/KG	UJ	63.1	ICRSD	
SED	PEST	20407020806	063004-SED-02709-00.2	N	SW8081A	SW3510C	alpha-BHC	58.8	U	58.8	UG/KG	UJ	58.8	ICRSD	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	
VALIDATION REASON CODES														
SED	PEST	20407020806	063004-SED-02709-00.2	N	SW8081A	SW3510C	delta-BHC	58.8	U	58.8	UG/KG	UJ	58.8	ICRSD
SED	PEST	20407020807	063004-SED-02710-00.2	N	SW8081A	SW3510C	alpha-BHC	57.1	U	57.1	UG/KG	UJ	57.1	ICRSD
SED	PEST	20407020808	063004-SED-02715-00.2	N	SW8081A	SW3510C	alpha-BHC	64.2	U	64.2	UG/KG	UJ	64.2	ICRSD
SED	PEST	20407020808	063004-SED-02715-00.2	N	SW8081A	SW3510C	delta-BHC	64.2	U	64.2	UG/KG	UJ	64.2	ICRSD
SED	PEST	20407020809	063004-SED-02716-00.2	N	SW8081A	SW3510C	alpha-BHC	57.3	U	57.3	UG/KG	UJ	57.3	ICRSD
SED	PEST	20407020809	063004-SED-02716-00.2	N	SW8081A	SW3510C	delta-BHC	57.3	U	57.3	UG/KG	UJ	57.3	ICRSD
SED	PEST	20407020810	063004-SED-02717-00.2	N	SW8081A	SW3510C	alpha-BHC	64.1	U	64.1	UG/KG	UJ	64.1	ICRSD
SED	PEST	20407020810	063004-SED-02717-00.2	N	SW8081A	SW3510C	delta-BHC	64.1	U	64.1	UG/KG	UJ	64.1	ICRSD
SED	PEST	20407020811	063004-SED-02718-00.2	N	SW8081A	SW3510C	alpha-BHC	61.4	U	61.4	UG/KG	UJ	61.4	ICRSD
SED	PEST	20407020811	063004-SED-02718-00.2	N	SW8081A	SW3510C	delta-BHC	61.4	U	61.4	UG/KG	UJ	61.4	ICRSD
SED	PEST	20407020812	063004-SED-02723-00.2	N	SW8081A	SW3510C	alpha-BHC	59.3	U	59.3	UG/KG	UJ	59.3	ICRSD
SED	PEST	20407020812	063004-SED-02723-00.2	N	SW8081A	SW3510C	delta-BHC	59.3	U	59.3	UG/KG	UJ	59.3	ICRSD
SED	PEST	20407020813	063004-SED-02724-00.2	N	SW8081A	SW3510C	alpha-BHC	56.6	U	56.6	UG/KG	UJ	56.6	ICRSD
SED	PEST	20407020813	063004-SED-02724-00.2	N	SW8081A	SW3510C	delta-BHC	56.6	U	56.6	UG/KG	UJ	56.6	ICRSD
SED	PEST	20407020814	063004-SED-02725-00.2	N	SW8081A	SW3510C	alpha-BHC	62.1	U	62.1	UG/KG	UJ	62.1	ICRSD
SED	PEST	20407020814	063004-SED-02725-00.2	N	SW8081A	SW3510C	delta-BHC	62.1	U	62.1	UG/KG	UJ	62.1	ICRSD
SED	PEST	20407020815	063004-SED-02726-00.2	N	SW8081A	SW3510C	alpha-BHC	60.4	U	60.4	UG/KG	UJ	60.4	ICRSD
SED	PEST	20407020815	063004-SED-02726-00.2	N	SW8081A	SW3510C	delta-BHC	60.4	U	60.4	UG/KG	UJ	60.4	ICRSD
SED	PEST	20407020816	063004-SED-02726-00.2-D	FD	SW8081A	SW3510C	alpha-BHC	60.6	U	60.6	UG/KG	UJ	60.6	ICRSD
SED	PEST	20407020816	063004-SED-02726-00.2-D	FD	SW8081A	SW3510C	delta-BHC	60.6	U	60.6	UG/KG	UJ	60.6	ICRSD
SO	PEST	20406042503	060204-SOI-02697-00.5	LR	SW8260B	NONE	1,2-Dibromo-3-chloropropane	446	U	446	UG/KG	UJ	446	ISL
SO	PEST	20406042504	060204-SOI-02697-00.5-D	LR	SW8260B	NONE	1,2-Dibromo-3-chloropropane	292	U	292	UG/KG	UJ	292	ISL
SO	PEST	20406050907	060304-SOI-02720-00.5	N	SW8081A	SW3510C	Endrin	12.7	=	12.7	UG/KG	J	11.8	MSDH
SO	PEST	20406032407	060104-SOI-02687-04.5	N	SW8081A	SW3510C	Methoxychlor	87	=	87	UG/KG	J	62.5	MSL, MSDL
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Aldrin	23.5	U	23.5	UG/KG	UJ	23.5	MSL, SSL
SO	PEST	20406050914	060404-SOI-02713-00.5	N	SW8081A	SW3510C	4,4'-DDE	130	=	130	UG/KG	J	74	SSH
SO	PEST	20406050916	060404-SOI-02727-00.5	N	SW8081A	SW3510C	4,4'-DDE	125	=	125	UG/KG	J	67.6	SSH
SO	PEST	20406050918	060404-SOI-02729-00.5	N	SW8081A	SW3510C	4,4'-DDE	97.3	=	97.3	UG/KG	J	70.8	SSH
SO	PEST	20406032401	060104-SOI-02687-02.0	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.73	U	6.73	UG/KG	UJ	6.73	SSL
SO	PEST	20406032402	060104-SOI-02688-02.0	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.37	U	5.37	UG/KG	UJ	5.37	SSL
SO	PEST	20406032403	060104-SOI-02689-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.29	U	5.29	UG/KG	UJ	5.29	SSL
SO	PEST	20406032404	060104-SOI-02688-04.0	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	4.3	U	4.3	UG/KG	UJ	4.3	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	4.78	U	4.78	UG/KG	UJ	4.78	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	4,4'-DDD	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	4,4'-DDE	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	4,4'-DDT	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Aldrin	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	alpha-BHC	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	alpha-Chlordane	15	U	15	UG/KG	UJ	15	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	beta-BHC	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	BP-6(PBB)	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Chlordane	15	U	15	UG/KG	UJ	15	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	delta-BHC	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Dieldrin	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Endosulfan I	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Endosulfan II	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Endosulfan sulfate	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Endrin	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Endrin aldehyde	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Endrin ketone	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	gamma-BHC (Lindane)	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	gamma-Chlordane	15	U	15	UG/KG	UJ	15	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Heptachlor	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Heptachlor epoxide	12	U	12	UG/KG	UJ	12	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Methoxychlor	30	U	30	UG/KG	UJ	30	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Mirex	30	U	30	UG/KG	UJ	30	SSL
SO	PEST	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Toxaphene	102	U	102	UG/KG	UJ	102	SSL
SO	PEST	20406032406	060104-SOI-02688-07.0	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	4.49	U	4.49	UG/KG	UJ	4.49	SSL
SO	PEST	20406032407	060104-SOI-02687-04.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.06	U	5.06	UG/KG	UJ	5.06	SSL
SO	PEST	20406032408	060104-SOI-02688-06.0	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	4.76	U	4.76	UG/KG	UJ	4.76	SSL
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.09	U	5.09	UG/KG	UJ	5.09	SSL
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	4,4'-DDD	23.5	U	23.5	UG/KG	UJ	23.5	SSL
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	4,4'-DDE	23.5	U	23.5	UG/KG	UJ	23.5	SSL
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	4,4'-DDT	23.5	U	23.5	UG/KG	UJ	23.5	SSL
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	alpha-BHC	23.5	U	23.5	UG/KG	UJ	23.5	SSL
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	alpha-Chlordane	29.3	U	29.3	UG/KG	UJ	29.3	SSL
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	beta-BHC	23.5	U	23.5	UG/KG	UJ	23.5	SSL
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	BP-6(PBB)	23.5	U	23.5	UG/KG	UJ	23.5	SSL

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT		VALIDATION REASON CODES
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Chlordane	29.3 U	29.3	UG/KG	UJ		29.3	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	delta-BHC	23.5 U	23.5	UG/KG	UJ		23.5	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Dieldrin	23.5 U	23.5	UG/KG	UJ		23.5	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Endosulfan II	23.5 U	23.5	UG/KG	UJ		23.5	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Endosulfan sulfate	23.5 U	23.5	UG/KG	UJ		23.5	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Endrin	23.5 U	23.5	UG/KG	UJ		23.5	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Endrin aldehyde	23.5 U	23.5	UG/KG	UJ		23.5	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Endrin ketone	23.5 U	23.5	UG/KG	UJ		23.5	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	gamma-BHC (Lindane)	23.5 U	23.5	UG/KG	UJ		23.5	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	gamma-Chlordane	29.3 U	29.3	UG/KG	UJ		29.3	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Heptachlor epoxide	23.5 U	23.5	UG/KG	UJ		23.5	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Methoxychlor	58.7 U	58.7	UG/KG	UJ		58.7	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Mirex	58.7 U	58.7	UG/KG	UJ		58.7	SSL	
SO	PEST	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Toxaphene	199 U	199	UG/KG	UJ		199	SSL	
SO	PEST	20406032412	060104-SOI-02687-00.5-D	FD	SW8141	SW3510C	0,0,0-Triethylphosphorothioate	41.1 U	41.1	UG/KG	UJ		41.1	SSL	
SO	PEST	20406032412	060104-SOI-02687-00.5-D	FD	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.07 U	6.07	UG/KG	UJ		6.07	SSL	
SO	PEST	20406032412	060104-SOI-02687-00.5-D	FD	SW8141	SW3510C	Dimethoate	29.4 U	29.4	UG/KG	UJ		29.4	SSL	
SO	PEST	20406032412	060104-SOI-02687-00.5-D	FD	SW8141	SW3510C	Disulfoton	29.4 U	29.4	UG/KG	UJ		29.4	SSL	
SO	PEST	20406032412	060104-SOI-02687-00.5-D	FD	SW8141	SW3510C	Ethyl Parathion	29.4 U	29.4	UG/KG	UJ		29.4	SSL	
SO	PEST	20406032412	060104-SOI-02687-00.5-D	FD	SW8141	SW3510C	Methyl Parathion	29.4 U	29.4	UG/KG	UJ		29.4	SSL	
SO	PEST	20406032412	060104-SOI-02687-00.5-D	FD	SW8141	SW3510C	Phorate	29.4 U	29.4	UG/KG	UJ		29.4	SSL	
SO	PEST	20406032412	060104-SOI-02687-00.5-D	FD	SW8141	SW3510C	Sulfotep	41.1 U	41.1	UG/KG	UJ		41.1	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	4.87 U	4.87	UG/KG	UJ		4.87	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	4,4'-DDD	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	4,4'-DDE	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	4,4'-DDT	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Aldrin	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	alpha-BHC	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	alpha-Chlordane	14.4 U	14.4	UG/KG	UJ		14.4	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	beta-BHC	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	BP-6(PBB)	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Chlordane	14.4 U	14.4	UG/KG	UJ		14.4	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	delta-BHC	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Dieldrin	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Endosulfan II	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Endosulfan sulfate	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Endrin	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Endrin aldehyde	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Endrin ketone	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	gamma-BHC (Lindane)	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	gamma-Chlordane	14.4 U	14.4	UG/KG	UJ		14.4	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Heptachlor epoxide	11.5 U	11.5	UG/KG	UJ		11.5	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Methoxychlor	28.8 U	28.8	UG/KG	UJ		28.8	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Mirex	28.8 U	28.8	UG/KG	UJ		28.8	SSL	
SO	PEST	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Toxaphene	98 U	98	UG/KG	UJ		98	SSL	
SO	PEST	20406032414	060104-SOI-02687-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.59 U	6.59	UG/KG	UJ		6.59	SSL	
SO	PEST	20406032415	060104-SOI-02689-02.0	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	4.9 U	4.9	UG/KG	UJ		4.9	SSL	
SO	PEST	20406032416	060104-SOI-02688-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.47 U	5.47	UG/KG	UJ		5.47	SSL	
SO	PEST	20406042501	060204-SOI-02695-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	4.94 U	4.94	UG/KG	UJ		4.94	SSL	
SO	PEST	20406042502	060204-SOI-02696-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.18 U	6.18	UG/KG	UJ		6.18	SSL	
SO	PEST	20406042505	060204-SOI-02698-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.35 U	6.35	UG/KG	UJ		6.35	SSL	
SO	PEST	20406042507	060204-SOI-02695-01.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	4.54 U	4.54	UG/KG	UJ		4.54	SSL	
SO	PEST	20406042508	060204-SOI-02696-04.0	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	7.6 U	7.6	UG/KG	UJ		7.6	SSL	
SO	PEST	20406042510	060204-SOI-02697-02.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.01 U	5.01	UG/KG	UJ		5.01	SSL	
SO	PEST	20406042511	060204-SOI-02696-02.0	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.7 U	6.7	UG/KG	UJ		6.7	SSL	
SO	PEST	20406050901	060304-SOI-02703-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.78 U	5.78	UG/KG	UJ		5.78	SSL	
SO	PEST	20406050902	060304-SOI-02705-00.5	N	SW8141	SW3510C	0,0,0-Triethylphosphorothioate	41.4 U	41.4	UG/KG	UJ		41.4	SSL	
SO	PEST	20406050902	060304-SOI-02705-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	7.11 U	7.11	UG/KG	UJ		7.11	SSL	
SO	PEST	20406050902	060304-SOI-02705-00.5	N	SW8141	SW3510C	Dimethoate	29.6 U	29.6	UG/KG	UJ		29.6	SSL	
SO	PEST	20406050902	060304-SOI-02705-00.5	N	SW8141	SW3510C	Disulfoton	29.6 U	29.6	UG/KG	UJ		29.6	SSL	
SO	PEST	20406050902	060304-SOI-02705-00.5	N	SW8141	SW3510C	Ethyl Parathion	29.6 U	29.6	UG/KG	UJ		29.6	SSL	
SO	PEST	20406050902	060304-SOI-02705-00.5	N	SW8141	SW3510C	Methyl Parathion	29.6 U	29.6	UG/KG	UJ		29.6	SSL	
SO	PEST	20406050902	060304-SOI-02705-00.5	N	SW8141	SW3510C	Phorate	29.6 U	29.6	UG/KG	UJ		29.6	SSL	
SO	PEST	20406050902	060304-SOI-02705-00.5	N	SW8141	SW3510C	Sulfotep	41.4 U	41.4	UG/KG	UJ		41.4	SSL	
SO	PEST	20406050903	060304-SOI-02706-00.5	N	SW8141	SW3510C	0,0,0-Triethylphosphorothioate	38 U	38	UG/KG	UJ		38	SSL	
SO	PEST	20406050903	060304-SOI-02706-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.36 U	5.36	UG/KG	UJ		5.36	SSL	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	PEST	20406050903	060304-SOI-02706-00.5	N	SW8141	SW3510C	Dimethoate	27.1 U	27.1	UG/KG	UJ		27.1	SSL
SO	PEST	20406050903	060304-SOI-02706-00.5	N	SW8141	SW3510C	Disulfoton	27.1 U	27.1	UG/KG	UJ		27.1	SSL
SO	PEST	20406050903	060304-SOI-02706-00.5	N	SW8141	SW3510C	Ethyl Parathion	27.1 U	27.1	UG/KG	UJ		27.1	SSL
SO	PEST	20406050903	060304-SOI-02706-00.5	N	SW8141	SW3510C	Methyl Parathion	27.1 U	27.1	UG/KG	UJ		27.1	SSL
SO	PEST	20406050903	060304-SOI-02706-00.5	N	SW8141	SW3510C	Phorate	27.1 U	27.1	UG/KG	UJ		27.1	SSL
SO	PEST	20406050903	060304-SOI-02706-00.5	N	SW8141	SW3510C	Sulfotep	38 U	38	UG/KG	UJ		38	SSL
SO	PEST	20406050904	060304-SOI-02704-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	10.2 U	10.2	UG/KG	UJ		10.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8141	SW3510C	0,0-Diethylphosphorothioate	46.1 U	46.1	UG/KG	UJ		46.1	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8260B	NONE	1,2-Dibromo-3-chloropropane	7.52 U	7.52	UG/KG	UJ		7.52	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	4,4'-DDD	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	4,4'-DDE	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	4,4'-DDT	34.1 =	34.1	UG/KG	J		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Aldrin	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	alpha-BHC	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	alpha-Chlordane	16.5 U	16.5	UG/KG	UJ		16.5	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	beta-BHC	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	BP-6(PBB)	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Chlordane	16.5 U	16.5	UG/KG	UJ		16.5	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	delta-BHC	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Dieldrin	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8141	SW3510C	Dimethoate	33 U	33	UG/KG	UJ		33	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8141	SW3510C	Disulfoton	33 U	33	UG/KG	UJ		33	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Endosulfan I	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Endosulfan II	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Endosulfan sulfate	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Endrin aldehyde	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Endrin ketone	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8141	SW3510C	Ethyl Parathion	33 U	33	UG/KG	UJ		33	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	gamma-BHC (Lindane)	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	gamma-Chlordane	16.5 U	16.5	UG/KG	UJ		16.5	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Heptachlor	13.2 U	13.2	UG/KG	UJ		13.2	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	methoxychlor	33 U	33	UG/KG	UJ		33	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8141	SW3510C	Methyl Parathion	33 U	33	UG/KG	UJ		33	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Mirex	33 U	33	UG/KG	UJ		33	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8141	SW3510C	Phorate	33 U	33	UG/KG	UJ		33	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8141	SW3510C	Sulfotep	46.1 U	46.1	UG/KG	UJ		46.1	SSL
SO	PEST	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Toxaphene	112 U	112	UG/KG	UJ		112	SSL
SO	PEST	20406050906	060304-SOI-02719-00.5	N	SW8141	SW3510C	0,0-Triethylphosphorothioate	44.4 U	44.4	UG/KG	UJ		44.4	SSL
SO	PEST	20406050906	060304-SOI-02719-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.4 U	6.4	UG/KG	UJ		6.4	SSL
SO	PEST	20406050906	060304-SOI-02719-00.5	N	SW8141	SW3510C	Dimethoate	31.7 U	31.7	UG/KG	UJ		31.7	SSL
SO	PEST	20406050906	060304-SOI-02719-00.5	N	SW8141	SW3510C	Disulfoton	31.7 U	31.7	UG/KG	UJ		31.7	SSL
SO	PEST	20406050906	060304-SOI-02719-00.5	N	SW8141	SW3510C	Ethyli Parathion	31.7 U	31.7	UG/KG	UJ		31.7	SSL
SO	PEST	20406050906	060304-SOI-02719-00.5	N	SW8141	SW3510C	Methyl Parathion	31.7 U	31.7	UG/KG	UJ		31.7	SSL
SO	PEST	20406050906	060304-SOI-02719-00.5	N	SW8141	SW3510C	Phorate	31.7 U	31.7	UG/KG	UJ		31.7	SSL
SO	PEST	20406050907	060304-SOI-02720-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.89 U	5.89	UG/KG	UJ		5.89	SSL
SO	PEST	20406050910	060304-SOI-02721-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.48 U	5.48	UG/KG	UJ		5.48	SSL
SO	PEST	20406050911	060304-SOI-02722-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.1 U	5.1	UG/KG	UJ		5.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.14 U	6.14	UG/KG	UJ		6.14	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	4,4'-DDD	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Aldrin	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	alpha-BHC	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	alpha-Chlordane	17.6 U	17.6	UG/KG	UJ		17.6	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	beta-BHC	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	BP-6(PBB)	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Chlordane	17.6 U	17.6	UG/KG	UJ		17.6	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	delta-BHC	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Dieldrin	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Endosulfan I	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Endosulfan II	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Endosulfan sulfate	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Endrin	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Endrin aldehyde	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Endrin ketone	14.1 U	14.1	UG/KG	UJ		14.1	SSL

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	gamma-BHC (Lindane)	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	gamma-Chlordane	17.6 U	17.6	UG/KG	UJ		17.6	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Heptachlor	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Heptachlor epoxide	14.1 U	14.1	UG/KG	UJ		14.1	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Mirex	35.3 U	35.3	UG/KG	UJ		35.3	SSL
SO	PEST	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Toxaphene	120 U	120	UG/KG	UJ		120	SSL
SO	PEST	20406050913	060404-SOI-02712-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.09 U	5.09	UG/KG	UJ		5.09	SSL
SO	PEST	20406050914	060404-SOI-02713-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	8.43 U	8.43	UG/KG	UJ		8.43	SSL
SO	PEST	20406050915	060404-SOI-02714-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.06 U	6.06	UG/KG	UJ		6.06	SSL
SO	PEST	20406050916	060404-SOI-02727-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.2 U	6.2	UG/KG	UJ		6.2	SSL
SO	PEST	20406050917	060404-SOI-02728-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	6.23 U	6.23	UG/KG	UJ		6.23	SSL
SO	PEST	20406050918	060404-SOI-02729-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	8.53 U	8.53	UG/KG	UJ		8.53	SSL
SO	PEST	20406050919	060404-SOI-02730-00.5	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	10.8 U	10.8	UG/KG	UJ		10.8	SSL
SO	PEST	20406050920	060404-SOI-02730-00.5-D	FD	SW8260B	NONE	1,2-Dibromo-3-chloropropane	8.08 U	8.08	UG/KG	UJ		8.08	SSL
SED	PEST	20407208081	063004-SED-02707-00.2	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	4.38 U	4.38	UG/KG	UJ		4.38	SSL
SED	PEST	20407208088	063004-SED-02715-00.2	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	5.9 U	5.9	UG/KG	UJ		5.9	SSL
SED	PEST	20407208015	063004-SED-02726-00.2	N	SW8260B	NONE	1,2-Dibromo-3-chloropropane	4.62 U	4.62	UG/KG	UJ		4.62	SSL
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	Hexachlorophene	1540 U	1540	UG/KG	UJ	1540	CCRRF, ICRSD, CCVL	
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	1,4 Dioxane	770 U	770	UG/KG	UJ	770	CCVL	
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8081A	SW3510C	Isodrin	58.3 U	58.3	UG/KG	UJ	58.3	CCVL	
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	Isoasfrole	770 U	770	UG/KG	UJ	770	CCVL	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	1,4-Benzenediamine	361 U	361	UG/KG	UJ	361	CCVL	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	1-Naphthylamine	361 U	361	UG/KG	UJ	361	CCVL	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	5-Nitro-o-toluidine	361 U	361	UG/KG	UJ	361	CCVL	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8081A	SW3510C	Isodrin	27.3 U	27.3	UG/KG	UJ	27.3	CCVL	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8081A	SW3510C	Isodrin	361 U	361	UG/KG	UJ	361	CCVL	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	Phenacetin	361 U	361	UG/KG	UJ	361	CCVL	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	1,4-Benzenediamine	397 U	397	UG/KG	UJ	397	CCVL	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	1-Naphthylamine	397 U	397	UG/KG	UJ	397	CCVL	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	5-Nitro-o-toluidine	397 U	397	UG/KG	UJ	397	CCVL	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8081A	SW3510C	Isodrin	30.1 U	30.1	UG/KG	UJ	30.1	CCVL	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	Phenacetin	397 U	397	UG/KG	UJ	397	CCVL	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	1,4-Benzenediamine	371 U	371	UG/KG	UJ	371	CCVL	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	1-Naphthylamine	371 U	371	UG/KG	UJ	371	CCVL	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	5-Nitro-o-toluidine	371 U	371	UG/KG	UJ	371	CCVL	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8081A	SW3510C	Isodrin	56.3 U	56.3	UG/KG	UJ	56.3	CCVL	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	Phenacetin	371 U	371	UG/KG	UJ	371	CCVL	
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	1,4-Benzenediamine	395 U	395	UG/KG	UJ	395	CCVL	
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	1-Naphthylamine	395 U	395	UG/KG	UJ	395	CCVL	
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	5-Nitro-o-toluidine	395 U	395	UG/KG	UJ	395	CCVL	
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	Phenacetin	395 U	395	UG/KG	UJ	395	CCVL	
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	1,4-Benzenediamine	371 U	371	UG/KG	UJ	371	CCVL	
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	1-Naphthylamine	371 U	371	UG/KG	UJ	371	CCVL	
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	5-Nitro-o-toluidine	371 U	371	UG/KG	UJ	371	CCVL	
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	Phenacetin	371 U	371	UG/KG	UJ	371	CCVL	
SO	SVOC	20406032407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	1,4 Dioxane	825 U	825	UG/KG	UJ	825	CCVL	
SO	SVOC	20406032407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	Isoasfrole	825 U	825	UG/KG	UJ	825	CCVL	
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	1,4-Benzenediamine	367 U	367	UG/KG	UJ	367	CCVL	
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	1-Naphthylamine	367 U	367	UG/KG	UJ	367	CCVL	
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	5-Nitro-o-toluidine	367 U	367	UG/KG	UJ	367	CCVL	
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8081A	SW3510C	Isodrin	27.8 U	27.8	UG/KG	UJ	27.8	CCVL	
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	Phenacetin	367 U	367	UG/KG	UJ	367	CCVL	
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8270C	SW3510C	Isoasfrole	387 U	387	UG/KG	UJ	387	CCVL	
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	1,4-Benzenediamine	388 U	388	UG/KG	UJ	388	CCVL	
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	1-Naphthylamine	388 U	388	UG/KG	UJ	388	CCVL	
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	5-Nitro-o-toluidine	388 U	388	UG/KG	UJ	388	CCVL	
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	Phenacetin	388 U	388	UG/KG	UJ	388	CCVL	
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	1,4-Benzenediamine	380 U	380	UG/KG	UJ	380	CCVL	
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	5-Nitro-o-toluidine	380 U	380	UG/KG	UJ	380	CCVL	
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	Phenacetin	380 U	380	UG/KG	UJ	380	CCVL	
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	1,4-Benzenediamine	390 U	390	UG/KG	UJ	390	CCVL	
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	1-Naphthylamine	390 U	390	UG/KG	UJ	390	CCVL	
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	5-Nitro-o-toluidine	390 U	390	UG/KG	UJ	390	CCVL	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8081A	SW3510C	Isodrin	29.6	U	29.6	UG/KG	UU	29.6	CCVL
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	Phenacetin	390	U	390	UG/KG	UU	390	CCVL
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	1,4-Benzenediamine	376	U	376	UG/KG	UU	376	CCVL
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	1-Naphthylamine	376	U	376	UG/KG	UU	376	CCVL
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	5-Nitro-o-toluidine	376	U	376	UG/KG	UU	376	CCVL
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	Phenacetin	376	U	376	UG/KG	UU	376	CCVL
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	1,4-Benzenediamine	1210	=	1210	UG/KG	J	353	CCVL
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	1-Naphthylamine	353	U	353	UG/KG	UU	353	CCVL
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	5-Nitro-o-toluidine	353	U	353	UG/KG	UU	353	CCVL
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8081A	SW3510C	Isodrin	26.7	U	26.7	UG/KG	UU	26.7	CCVL
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	Phenacetin	353	U	353	UG/KG	UU	353	CCVL
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	1,4-Benzenediamine	383	U	383	UG/KG	UU	383	CCVL
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	a,a-Dimethylphenethylamine	383	U	383	UG/KG	UU	383	CCVL
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	Isosafrole	383	U	383	UG/KG	UU	383	CCVL
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	1,4-Benzenediamine	445	U	445	UG/KG	UU	445	CCVL
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	a,a-Dimethylphenethylamine	445	U	445	UG/KG	UU	445	CCVL
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	Isosafrole	445	U	445	UG/KG	UU	445	CCVL
SED	SVOC	20406302301	062804-SED-02691-00.2	N	SW8081A	SW3510C	Isodrin	29.3	U	29.3	UG/KG	UU	29.3	CCVL
SED	SVOC	20406302302	062804-SED-02692-00.2	N	SW8081A	SW3510C	Isodrin	30.6	U	30.6	UG/KG	UU	30.6	CCVL
SED	SVOC	20406302303	062804-SED-02693-00.2	N	SW8081A	SW3510C	Isodrin	29.6	U	29.6	UG/KG	UU	29.6	CCVL
SED	SVOC	20406302304	062804-SED-02694-00.2	N	SW8081A	SW3510C	Isodrin	27.7	U	27.7	UG/KG	UU	27.7	CCVL
SED	SVOC	20406302305	062904-SED-02699-02.2	N	SW8081A	SW3510C	Isodrin	28.5	U	28.5	UG/KG	UU	28.5	CCVL
SED	SVOC	20406302306	062904-SED-02700-00.2	N	SW8081A	SW3510C	Isodrin	28.4	U	28.4	UG/KG	UU	28.4	CCVL
SED	SVOC	20406302307	062904-SED-02701-00.2	N	SW8081A	SW3510C	Isodrin	30.5	U	30.5	UG/KG	UU	30.5	CCVL
SO	SVOC	2040632401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	1,4-Benzenediamine	770	U	770	UG/KG	UU	770	CCVL, CCRRF
SO	SVOC	2040632403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	Isosafrole	397	U	397	UG/KG	UU	397	CCVL, CCRRF
SO	SVOC	2040632404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	Isosafrole	371	U	371	UG/KG	UU	371	CCVL, CCRRF
SO	SVOC	2040632405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	Isosafrole	395	U	395	UG/KG	UU	395	CCVL, CCRRF
SO	SVOC	2040632406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	Isosafrole	371	U	371	UG/KG	UU	371	CCVL, CCRRF
SO	SVOC	2040632407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	1,4-Benzenediamine	825	U	825	UG/KG	UU	825	CCVL, CCRRF
SO	SVOC	2040632408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	Isophorone	367	U	367	UG/KG	UU	367	CCVL, CCRRF
SO	SVOC	2040632409	060104-SOI-02690-00.5	N	SW8270C	SW3510C	1,4-Benzenediamine	387	U	387	UG/KG	UU	387	CCVL, CCRRF
SO	SVOC	2040632412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	Isosafrole	388	U	388	UG/KG	UU	388	CCVL, CCRRF
SO	SVOC	2040632413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	Isosafrole	380	U	380	UG/KG	UU	380	CCVL, CCRRF
SO	SVOC	2040632414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	Isosafrole	390	U	390	UG/KG	UU	390	CCVL, CCRRF
SO	SVOC	2040632415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	Isosafrole	376	U	376	UG/KG	UU	376	CCVL, CCRRF
SO	SVOC	2040632416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	Isosafrole	353	U	353	UG/KG	UU	353	CCVL, CCRRF
SO	SVOC	2040650901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	Isosafrole	388	U	388	UG/KG	UU	388	CCVL, CCRRF
SO	SVOC	2040650902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	Isosafrole	390	U	390	UG/KG	UU	390	CCVL, CCRRF
SO	SVOC	2040650903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	Isosafrole	358	U	358	UG/KG	UU	358	CCVL, CCRRF
SO	SVOC	2040650904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	Isosafrole	391	U	391	UG/KG	UU	391	CCVL, CCRRF
SO	SVOC	2040650905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	Isosafrole	435	U	435	UG/KG	UU	435	CCVL, CCRRF
SO	SVOC	2040650906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	Isosafrole	419	U	419	UG/KG	UU	419	CCVL, CCRRF
SO	SVOC	2040650907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	Isosafrole	389	U	389	UG/KG	UU	389	CCVL, CCRRF
SO	SVOC	2040650910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	Isosafrole	436	U	436	UG/KG	UU	436	CCVL, CCRRF
SO	SVOC	2040650911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	Isosafrole	387	U	387	UG/KG	UU	387	CCVL, CCRRF
SO	SVOC	2040650912	060404-SOI-02711-00.5	N	SW8270C	SW3510C	Isosafrole	466	U	466	UG/KG	UU	466	CCVL, CCRRF
SO	SVOC	2040650913	060404-SOI-02712-00.5	N	SW8270C	SW3510C	Isosafrole	413	U	413	UG/KG	UU	413	CCVL, CCRRF
SO	SVOC	2040650914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	Isosafrole	489	U	489	UG/KG	UU	489	CCVL, CCRRF
SO	SVOC	2040650915	060404-SOI-02714-00.5	N	SW8270C	SW3510C	Isosafrole	445	U	445	UG/KG	UU	445	CCVL, CCRRF
SO	SVOC	2040650916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	Isosafrole	446	U	446	UG/KG	UU	446	CCVL, CCRRF
SO	SVOC	2040650917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	Isosafrole	421	U	421	UG/KG	UU	421	CCVL, CCRRF
SO	SVOC	2040650918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	Isosafrole	467	U	467	UG/KG	UU	467	CCVL, CCRRF
SO	SVOC	2040650919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	Isosafrole	428	U	428	UG/KG	UU	428	CCVL, CCRRF
SO	SVOC	2040650920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	Isosafrole	426	U	426	UG/KG	UU	426	CCVL, CCRRF
SO	SVOC	2040632402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	361	U	361	UG/KG	UU	361	CCVL, ICRSD, CCRRF
SO	SVOC	2040632402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	Hexachlorophene	722	U	722	UG/KG	UU	722	CCVL, ICRSD, CCRRF
SO	SVOC	2040632403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	397	U	397	UG/KG	UU	397	CCVL, ICRSD, CCRRF
SO	SVOC	2040632403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	Hexachlorophene	795	U	795	UG/KG	UU	795	CCVL, ICRSD, CCRRF
SO	SVOC	2040632404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	371	U	371	UG/KG	UU	371	CCVL, ICRSD, CCRRF
SO	SVOC	2040632404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	Hexachlorophene	743	U	743	UG/KG	UU	743	CCVL, ICRSD, CCRRF
SO	SVOC	2040632405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	395	U	395	UG/KG	UU	395	CCVL, ICRSD, CCRRF
SO	SVOC	2040632405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	Hexachlorophene	791	U	791	UG/KG	UU	791	CCVL, ICRSD, CCRRF
SO	SVOC	2040632406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	371	U	371	UG/KG	UU	371	CCVL, ICRSD, CCRRF

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	Hexachlorophene	742 U	742	UG/KG	UJ	742	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	Hexachlorophene	1650 U	1650	UG/KG	UJ	1650	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	367 U	367	UG/KG	UJ	367	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	Hexachlorophene	735 U	735	UG/KG	UJ	735	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8270C	SW3510C	Hexachlorophene	774 U	774	UG/KG	UJ	774	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	388 U	388	UG/KG	UJ	388	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	Hexachlorophene	775 U	775	UG/KG	UJ	775	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	380 U	380	UG/KG	UJ	380	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	Hexachlorophene	761 U	761	UG/KG	UJ	761	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	390 U	390	UG/KG	UJ	390	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	Hexachlorophene	781 U	781	UG/KG	UJ	781	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	376 U	376	UG/KG	UJ	376	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	Hexachlorophene	753 U	753	UG/KG	UJ	753	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	353 U	353	UG/KG	UJ	353	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	Hexachlorophene	706 U	706	UG/KG	UJ	706	CCVL, ICRSD, CCRRF	
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Isodrin	30 U	30	UG/KG	UJ	30	CCVL, SSL	
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Isodrin	58.7 U	58.7	UG/KG	UJ	58.7	CCVL, SSL	
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Isodrin	28.8 U	28.8	UG/KG	UJ	28.8	CCVL, SSL	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	Isofarole	361 U	361	UG/KG	UJ	361	CCVL, CCRRF	
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	Aramite	388 U	388	UG/KG	UJ	388	ICRRF	
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	Aramite	390 U	390	UG/KG	UJ	390	ICRRF	
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	Aramite	358 U	358	UG/KG	UJ	358	ICRRF	
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	Aramite	391 U	391	UG/KG	UJ	391	ICRRF	
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	Aramite	435 U	435	UG/KG	UJ	435	ICRRF	
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	Aramite	419 U	419	UG/KG	UJ	419	ICRRF	
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	Aramite	389 U	389	UG/KG	UJ	389	ICRRF	
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	Aramite	436 U	436	UG/KG	UJ	436	ICRRF	
SO	SVOC	20406050911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	Aramite	387 U	387	UG/KG	UJ	387	ICRRF	
SO	SVOC	20406050912	060404-SOI-02711-00.5	N	SW8270C	SW3510C	Aramite	466 U	466	UG/KG	UJ	466	ICRRF	
SO	SVOC	20406050913	060404-SOI-02712-00.5	N	SW8270C	SW3510C	Aramite	413 U	413	UG/KG	UJ	413	ICRRF	
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	Aramite	489 U	489	UG/KG	UJ	489	ICRRF	
SO	SVOC	20406050915	060404-SOI-02714-00.5	N	SW8270C	SW3510C	Aramite	445 U	445	UG/KG	UJ	445	ICRRF	
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	Aramite	446 U	446	UG/KG	UJ	446	ICRRF	
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	Aramite	421 U	421	UG/KG	UJ	421	ICRRF	
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	Aramite	467 U	467	UG/KG	UJ	467	ICRRF	
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	Aramite	428 U	428	UG/KG	UJ	428	ICRRF	
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	Aramite	426 U	426	UG/KG	UJ	426	ICRRF	
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	1,4-Naphthoquinone	1540 U	1540	UG/KG	UJ	1540	ICRSD	
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	2,4-Dinitrophenol	3850 U	3850	UG/KG	UJ	3850	ICRSD	
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	2-Methylnaphthalene	770 U	770	UG/KG	UJ	770	ICRSD	
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	4-Chloroaniline	770 U	770	UG/KG	UJ	770	ICRSD	
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	770 U	770	UG/KG	UJ	770	ICRSD	
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	Aniline	770 U	770	UG/KG	UJ	770	ICRSD	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	1,4-Naphthoquinone	722 U	722	UG/KG	UJ	722	ICRSD	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	2,4-Dinitrophenol	1800 U	1800	UG/KG	UJ	1800	ICRSD	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	4-Nitrophenol	1800 U	1800	UG/KG	UJ	1800	ICRSD	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	Aniline	361 U	361	UG/KG	UJ	361	ICRSD	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	Benzof(b)fluoranthene	361 U	361	UG/KG	UJ	361	ICRSD	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	Hexachlorocyclopentadiene	361 U	361	UG/KG	UJ	361	ICRSD	
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	o and/or p - Toluidine	361 U	361	UG/KG	UJ	361	ICRSD	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	795 U	795	UG/KG	UJ	795	ICRSD	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	1990 U	1990	UG/KG	UJ	1990	ICRSD	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	Aniline	397 U	397	UG/KG	UJ	397	ICRSD	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	Benzof(b)fluoranthene	397 U	397	UG/KG	UJ	397	ICRSD	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	Hexachlorocyclopentadiene	397 U	397	UG/KG	UJ	397	ICRSD	
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	397 U	397	UG/KG	UJ	397	ICRSD	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	1,4-Naphthoquinone	743 U	743	UG/KG	UJ	743	ICRSD	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	2,4-Dinitrophenol	1860 U	1860	UG/KG	UJ	1860	ICRSD	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	4-Nitrophenol	1860 U	1860	UG/KG	UJ	1860	ICRSD	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	Aniline	371 U	371	UG/KG	UJ	371	ICRSD	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	Benzof(b)fluoranthene	371 U	371	UG/KG	UJ	371	ICRSD	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	Hexachlorocyclopentadiene	371 U	371	UG/KG	UJ	371	ICRSD	
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	o and/or p - Toluidine	371 U	371	UG/KG	UJ	371	ICRSD	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	791 U	791	UG/KG	UJ	791		ICRSD
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	1980 U	1980	UG/KG	UJ	1980		ICRSD
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	4-Nitrophenol	1980 U	1980	UG/KG	UJ	1980		ICRSD
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	Aniline	395 U	395	UG/KG	UJ	395		ICRSD
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	Benz(o)b)fluoranthene	395 U	395	UG/KG	UJ	395		ICRSD
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	Hexachlorocyclopentadiene	395 U	395	UG/KG	UJ	395		ICRSD
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	o and/or p - Toluidine	395 U	395	UG/KG	UJ	395		ICRSD
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	1,4-Naphthoquinone	742 U	742	UG/KG	UJ	742		ICRSD
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	2,4-Dinitrophenol	1860 U	1860	UG/KG	UJ	1860		ICRSD
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	4-Nitrophenol	1860 U	1860	UG/KG	UJ	1860		ICRSD
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	Aniline	371 U	371	UG/KG	UJ	371		ICRSD
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	Benz(o)b)fluoranthene	371 U	371	UG/KG	UJ	371		ICRSD
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	Hexachlorocyclopentadiene	371 U	371	UG/KG	UJ	371		ICRSD
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	o and/or p - Toluidine	371 U	371	UG/KG	UJ	371		ICRSD
SO	SVOC	20406032407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	1650 U	1650	UG/KG	UJ	1650		ICRSD
SO	SVOC	20406032407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	4120 U	4120	UG/KG	UJ	4120		ICRSD
SO	SVOC	20406032407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	2-Methylnaphthalene	825 U	825	UG/KG	UJ	825		ICRSD
SO	SVOC	20406032407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	4-Chloroaniline	825 U	825	UG/KG	UJ	825		ICRSD
SO	SVOC	20406032407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	825 U	825	UG/KG	UJ	825		ICRSD
SO	SVOC	20406032407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	Aniline	825 U	825	UG/KG	UJ	825		ICRSD
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	1,4-Naphthoquinone	735 U	735	UG/KG	UJ	735		ICRSD
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	2,4-Dinitrophenol	1840 U	1840	UG/KG	UJ	1840		ICRSD
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	4-Nitrophenol	1840 U	1840	UG/KG	UJ	1840		ICRSD
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	Aniline	367 U	367	UG/KG	UJ	367		ICRSD
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	Benz(o)b)fluoranthene	367 U	367	UG/KG	UJ	367		ICRSD
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	Hexachlorocyclopentadiene	367 U	367	UG/KG	UJ	367		ICRSD
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	o and/or p - Toluidine	367 U	367	UG/KG	UJ	367		ICRSD
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	774 U	774	UG/KG	UJ	774		ICRSD
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	1940 U	1940	UG/KG	UJ	1940		ICRSD
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	387 U	387	UG/KG	UJ	387		ICRSD
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8270C	SW3510C	4-Chloroaniline	387 U	387	UG/KG	UJ	387		ICRSD
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	387 U	387	UG/KG	UJ	387		ICRSD
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8270C	SW3510C	Aniline	387 U	387	UG/KG	UJ	387		ICRSD
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	1,4-Naphthoquinone	775 U	775	UG/KG	UJ	775		ICRSD
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	2,4-Dinitrophenol	1940 U	1940	UG/KG	UJ	1940		ICRSD
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	4-Nitrophenol	1940 U	1940	UG/KG	UJ	1940		ICRSD
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	Aniline	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	Benz(o)b)fluoranthene	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	Hexachlorocyclopentadiene	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	o and/or p - Toluidine	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	1,4-Naphthoquinone	761 U	761	UG/KG	UJ	761		ICRSD
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	2,4-Dinitrophenol	1900 U	1900	UG/KG	UJ	1900		ICRSD
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	4-Nitrophenol	1900 U	1900	UG/KG	UJ	1900		ICRSD
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	Aniline	380 U	380	UG/KG	UJ	380		ICRSD
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	Benz(o)b)fluoranthene	380 U	380	UG/KG	UJ	380		ICRSD
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	Hexachlorocyclopentadiene	380 U	380	UG/KG	UJ	380		ICRSD
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	o and/or p - Toluidine	380 U	380	UG/KG	UJ	380		ICRSD
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	781 U	781	UG/KG	UJ	781		ICRSD
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	1950 U	1950	UG/KG	UJ	1950		ICRSD
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	4-Nitrophenol	1950 U	1950	UG/KG	UJ	1950		ICRSD
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	Aniline	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	Benz(o)b)fluoranthene	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	Hexachlorocyclopentadiene	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	1,4-Naphthoquinone	753 U	753	UG/KG	UJ	753		ICRSD
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	2,4-Dinitrophenol	1880 U	1880	UG/KG	UJ	1880		ICRSD
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	4-Nitrophenol	1880 U	1880	UG/KG	UJ	1880		ICRSD
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	Aniline	376 U	376	UG/KG	UJ	376		ICRSD
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	Benz(o)b)fluoranthene	376 U	376	UG/KG	UJ	376		ICRSD
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	Hexachlorocyclopentadiene	376 U	376	UG/KG	UJ	376		ICRSD
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	o and/or p - Toluidine	376 U	376	UG/KG	UJ	376		ICRSD
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	706 U	706	UG/KG	UJ	706		ICRSD
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	1770 U	1770	UG/KG	UJ	1770		ICRSD

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	4-Nitrophenol	1770 U	1770	UG/KG	UJ	1770	ICRSD	
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	Aniline	353 U	353	UG/KG	UJ	353	ICRSD	
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	Benzo(b)fluoranthene	353 U	353	UG/KG	UJ	353	ICRSD	
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8081A	SW3510C	Diallate (Avadex)	26.7 U	26.7	UG/KG	UJ	26.7	ICRSD	
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	Hexachlorocyclopentadiene	353 U	353	UG/KG	UJ	353	ICRSD	
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	353 U	353	UG/KG	UJ	353	ICRSD	
SO	SVOC	20406042501	060204-SOI-02695-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	849 U	849	UG/KG	UJ	849	ICRSD	
SO	SVOC	20406042501	060204-SOI-02695-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	425 U	425	UG/KG	UJ	425	ICRSD	
SO	SVOC	20406042501	060204-SOI-02695-00.5	N	SW8270C	SW3510C	4-Chloroaniline	425 U	425	UG/KG	UJ	425	ICRSD	
SO	SVOC	20406042501	060204-SOI-02695-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	425 U	425	UG/KG	UJ	425	ICRSD	
SO	SVOC	20406042501	060204-SOI-02695-00.5	N	SW8270C	SW3510C	Aniline	425 U	425	UG/KG	UJ	425	ICRSD	
SO	SVOC	20406042501	060204-SOI-02695-00.5	N	SW8081A	SW3510C	Diallate (Avadex)	32.2 U	32.2	UG/KG	UJ	32.2	ICRSD	
SO	SVOC	20406042501	060204-SOI-02695-00.5	N	SW8270C	SW3510C	Hexabromobenzene	425 U	425	UG/KG	UJ	425	ICRSD	
SO	SVOC	20406042501	060204-SOI-02695-00.5	N	SW8270C	SW3510C	Hexachlorophene	849 U	849	UG/KG	UJ	849	ICRSD	
SO	SVOC	20406042501	060204-SOI-02695-00.5	N	SW8270C	SW3510C	n-Nitrosomethylmethylaniline	425 U	425	UG/KG	UJ	425	ICRSD	
SO	SVOC	20406042501	060204-SOI-02695-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	425 U	425	UG/KG	UJ	425	ICRSD	
SO	SVOC	20406042502	060204-SOI-02696-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	925 U	925	UG/KG	UJ	925	ICRSD	
SO	SVOC	20406042502	060204-SOI-02696-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	463 U	463	UG/KG	UJ	463	ICRSD	
SO	SVOC	20406042502	060204-SOI-02696-00.5	N	SW8270C	SW3510C	4-Chloroaniline	463 U	463	UG/KG	UJ	463	ICRSD	
SO	SVOC	20406042502	060204-SOI-02696-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	463 U	463	UG/KG	UJ	463	ICRSD	
SO	SVOC	20406042502	060204-SOI-02696-00.5	N	SW8270C	SW3510C	Aniline	463 U	463	UG/KG	UJ	463	ICRSD	
SO	SVOC	20406042502	060204-SOI-02696-00.5	N	SW8081A	SW3510C	Diallate (Avadex)	35.1 U	35.1	UG/KG	UJ	35.1	ICRSD	
SO	SVOC	20406042502	060204-SOI-02696-00.5	N	SW8270C	SW3510C	Hexabromobenzene	463 U	463	UG/KG	UJ	463	ICRSD	
SO	SVOC	20406042502	060204-SOI-02696-00.5	N	SW8270C	SW3510C	Hexachlorophene	925 U	925	UG/KG	UJ	925	ICRSD	
SO	SVOC	20406042502	060204-SOI-02696-00.5	N	SW8270C	SW3510C	n-Nitrosomethylmethylaniline	463 U	463	UG/KG	UJ	463	ICRSD	
SO	SVOC	20406042502	060204-SOI-02696-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	463 U	463	UG/KG	UJ	463	ICRSD	
SO	SVOC	20406042503	060204-SOI-02697-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	892 U	892	UG/KG	UJ	892	ICRSD	
SO	SVOC	20406042503	060204-SOI-02697-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	446 U	446	UG/KG	UJ	446	ICRSD	
SO	SVOC	20406042503	060204-SOI-02697-00.5	N	SW8270C	SW3510C	4-Chloroaniline	446 U	446	UG/KG	UJ	446	ICRSD	
SO	SVOC	20406042503	060204-SOI-02697-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	446 U	446	UG/KG	UJ	446	ICRSD	
SO	SVOC	20406042503	060204-SOI-02697-00.5	N	SW8270C	SW3510C	Aniline	446 U	446	UG/KG	UJ	446	ICRSD	
SO	SVOC	20406042503	060204-SOI-02697-00.5	N	SW8081A	SW3510C	Diallate (Avadex)	33.8 U	33.8	UG/KG	UJ	33.8	ICRSD	
SO	SVOC	20406042503	060204-SOI-02697-00.5	N	SW8270C	SW3510C	Hexabromobenzene	446 U	446	UG/KG	UJ	446	ICRSD	
SO	SVOC	20406042503	060204-SOI-02697-00.5	N	SW8270C	SW3510C	Hexachlorophene	892 U	892	UG/KG	UJ	892	ICRSD	
SO	SVOC	20406042503	060204-SOI-02697-00.5	N	SW8270C	SW3510C	n-Nitrosomethylmethylaniline	446 U	446	UG/KG	UJ	446	ICRSD	
SO	SVOC	20406042503	060204-SOI-02697-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	446 U	446	UG/KG	UJ	446	ICRSD	
SO	SVOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8270C	SW3510C	1,4-Naphthoquinone	902 U	902	UG/KG	UJ	902	ICRSD	
SO	SVOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8270C	SW3510C	2-Methylnaphthalene	451 U	451	UG/KG	UJ	451	ICRSD	
SO	SVOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8270C	SW3510C	4-Chloroaniline	451 U	451	UG/KG	UJ	451	ICRSD	
SO	SVOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	451 U	451	UG/KG	UJ	451	ICRSD	
SO	SVOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8270C	SW3510C	Aniline	451 U	451	UG/KG	UJ	451	ICRSD	
SO	SVOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8081A	SW3510C	Diallate (Avadex)	34.2 U	34.2	UG/KG	UJ	34.2	ICRSD	
SO	SVOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8270C	SW3510C	Hexabromobenzene	451 U	451	UG/KG	UJ	451	ICRSD	
SO	SVOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8270C	SW3510C	Hexachlorophene	902 U	902	UG/KG	UJ	902	ICRSD	
SO	SVOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8270C	SW3510C	n-Nitrosomethylmethylaniline	451 U	451	UG/KG	UJ	451	ICRSD	
SO	SVOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8270C	SW3510C	o and/or p - Toluidine	451 U	451	UG/KG	UJ	451	ICRSD	
SO	SVOC	20406042505	060204-SOI-02698-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	885 U	885	UG/KG	UJ	885	ICRSD	
SO	SVOC	20406042505	060204-SOI-02698-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	442 U	442	UG/KG	UJ	442	ICRSD	
SO	SVOC	20406042505	060204-SOI-02698-00.5	N	SW8270C	SW3510C	4-Chloroaniline	442 U	442	UG/KG	UJ	442	ICRSD	
SO	SVOC	20406042505	060204-SOI-02698-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	442 U	442	UG/KG	UJ	442	ICRSD	
SO	SVOC	20406042505	060204-SOI-02698-00.5	N	SW8270C	SW3510C	Aniline	442 U	442	UG/KG	UJ	442	ICRSD	
SO	SVOC	20406042505	060204-SOI-02698-00.5	N	SW8081A	SW3510C	Diallate (Avadex)	33.5 U	33.5	UG/KG	UJ	33.5	ICRSD	
SO	SVOC	20406042505	060204-SOI-02698-00.5	N	SW8270C	SW3510C	Hexabromobenzene	442 U	442	UG/KG	UJ	442	ICRSD	
SO	SVOC	20406042505	060204-SOI-02698-00.5	N	SW8270C	SW3510C	Hexachlorophene	885 U	885	UG/KG	UJ	885	ICRSD	
SO	SVOC	20406042505	060204-SOI-02698-00.5	N	SW8270C	SW3510C	n-Nitrosomethylmethylaniline	442 U	442	UG/KG	UJ	442	ICRSD	
SO	SVOC	20406042505	060204-SOI-02698-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	442 U	442	UG/KG	UJ	442	ICRSD	
SO	SVOC	20406042507	060204-SOI-02695-01.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	777 U	777	UG/KG	UJ	777	ICRSD	
SO	SVOC	20406042507	060204-SOI-02695-01.5	N	SW8270C	SW3510C	2-Methylnaphthalene	388 U	388	UG/KG	UJ	388	ICRSD	
SO	SVOC	20406042507	060204-SOI-02695-01.5	N	SW8270C	SW3510C	4-Chloroaniline	388 U	388	UG/KG	UJ	388	ICRSD	
SO	SVOC	20406042507	060204-SOI-02695-01.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	388 U	388	UG/KG	UJ	388	ICRSD	
SO	SVOC	20406042507	060204-SOI-02695-01.5	N	SW8270C	SW3510C	Aniline	388 U	388	UG/KG	UJ	388	ICRSD	
SO	SVOC	20406042507	060204-SOI-02695-01.5	N	SW8081A	SW3510C	Diallate (Avadex)	29.4 U	29.4	UG/KG	UJ	29.4	ICRSD	
SO	SVOC	20406042507	060204-SOI-02695-01.5	N	SW8270C	SW3510C	Hexabromobenzene	388 U	388	UG/KG	UJ	388	ICRSD	
SO	SVOC	20406042507	060204-SOI-02695-01.5	N	SW8270C	SW3510C	Hexachlorophene	777 U	777	UG/KG	UJ	777	ICRSD	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	SVOC	20406042507	060204-SOI-02695-01.5	N	SW8270C	SW3510C	n-Nitrosomethylmethamphetamine	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406042507	060204-SOI-02695-01.5	N	SW8270C	SW3510C	o and/or p - Toluidine	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406042508	060204-SOI-02696-04.0	N	SW8270C	SW3510C	1,4-Naphthoquinone	825 U	825	UG/KG	UJ	825		ICRSD
SO	SVOC	20406042508	060204-SOI-02696-04.0	N	SW8270C	SW3510C	2-Methylnaphthalene	412 U	412	UG/KG	UJ	412		ICRSD
SO	SVOC	20406042508	060204-SOI-02696-04.0	N	SW8270C	SW3510C	4-Chloroaniline	412 U	412	UG/KG	UJ	412		ICRSD
SO	SVOC	20406042508	060204-SOI-02696-04.0	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	412 U	412	UG/KG	UJ	412		ICRSD
SO	SVOC	20406042508	060204-SOI-02696-04.0	N	SW8270C	SW3510C	Aniline	412 U	412	UG/KG	UJ	412		ICRSD
SO	SVOC	20406042508	060204-SOI-02696-04.0	N	SW8081A	SW3510C	Diallate (Avadex)	31.2 U	31.2	UG/KG	UJ	31.2		ICRSD
SO	SVOC	20406042508	060204-SOI-02696-04.0	N	SW8270C	SW3510C	Hexabromobenzene	412 U	412	UG/KG	UJ	412		ICRSD
SO	SVOC	20406042508	060204-SOI-02696-04.0	N	SW8270C	SW3510C	Hexachlorophene	825 U	825	UG/KG	UJ	825		ICRSD
SO	SVOC	20406042508	060204-SOI-02696-04.0	N	SW8270C	SW3510C	n-Nitrosomethylmethamphetamine	412 U	412	UG/KG	UJ	412		ICRSD
SO	SVOC	20406042508	060204-SOI-02696-04.0	N	SW8270C	SW3510C	o and/or p - Toluidine	412 U	412	UG/KG	UJ	412		ICRSD
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	767 U	767	UG/KG	UJ	767		ICRSD
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	2-Methylnaphthalene	383 U	383	UG/KG	UJ	383		ICRSD
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	4-Chloroaniline	383 U	383	UG/KG	UJ	383		ICRSD
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	383 U	383	UG/KG	UJ	383		ICRSD
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	Aniline	383 U	383	UG/KG	UJ	383		ICRSD
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8081A	SW3510C	Diallate (Avadex)	29.1 U	29.1	UG/KG	UJ	29.1		ICRSD
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	Hexabromobenzene	383 U	383	UG/KG	UJ	383		ICRSD
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	Hexachlorophene	767 U	767	UG/KG	UJ	767		ICRSD
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	o and/or p - Toluidine	383 U	383	UG/KG	UJ	383		ICRSD
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	1,4-Naphthoquinone	890 U	890	UG/KG	UJ	890		ICRSD
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	2-Methylnaphthalene	445 U	445	UG/KG	UJ	445		ICRSD
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	4-Chloroaniline	445 U	445	UG/KG	UJ	445		ICRSD
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	445 U	445	UG/KG	UJ	445		ICRSD
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	Aniline	445 U	445	UG/KG	UJ	445		ICRSD
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8081A	SW3510C	Diallate (Avadex)	33.7 U	33.7	UG/KG	UJ	33.7		ICRSD
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	Hexabromobenzene	445 U	445	UG/KG	UJ	445		ICRSD
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	Hexachlorophene	890 U	890	UG/KG	UJ	890		ICRSD
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	o and/or p - Toluidine	445 U	445	UG/KG	UJ	445		ICRSD
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	776 U	776	UG/KG	UJ	776		ICRSD
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	2-Dinitrophenol	1940 U	1940	UG/KG	UJ	1940		ICRSD
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	4-Chloroaniline	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	Aniline	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	Hexachlorophene	776 U	776	UG/KG	UJ	776		ICRSD
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	781 U	781	UG/KG	UJ	781		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	1950 U	1950	UG/KG	UJ	1950		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	4-Chloroaniline	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	Aniline	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	Hexachlorophene	776 U	776	UG/KG	UJ	776		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	388 U	388	UG/KG	UJ	388		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	781 U	781	UG/KG	UJ	781		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	1950 U	1950	UG/KG	UJ	1950		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	4-Chloroaniline	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	Aniline	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	Hexachlorophene	782 U	782	UG/KG	UJ	782		ICRSD
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	390 U	390	UG/KG	UJ	390		ICRSD
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	716 U	716	UG/KG	UJ	716		ICRSD
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	2-Dinitrophenol	1790 U	1790	UG/KG	UJ	1790		ICRSD
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	358 U	358	UG/KG	UJ	358		ICRSD
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	4-Chloroaniline	358 U	358	UG/KG	UJ	358		ICRSD
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	358 U	358	UG/KG	UJ	358		ICRSD
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	Aniline	358 U	358	UG/KG	UJ	358		ICRSD
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	Hexachlorophene	716 U	716	UG/KG	UJ	716		ICRSD
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	358 U	358	UG/KG	UJ	358		ICRSD
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	782 U	782	UG/KG	UJ	782		ICRSD
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	1950 U	1950	UG/KG	UJ	1950		ICRSD
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	391 U	391	UG/KG	UJ	391		ICRSD
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	4-Chloroaniline	391 U	391	UG/KG	UJ	391		ICRSD
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	391 U	391	UG/KG	UJ	391		ICRSD
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	Aniline	391 U	391	UG/KG	UJ	391		ICRSD
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	Hexachlorophene	782 U	782	UG/KG	UJ	782		ICRSD
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	391 U	391	UG/KG	UJ	391		ICRSD
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	1,4-Naphthoquinone	870 U	870	UG/KG	UJ	870		ICRSD
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	2,4-Dinitrophenol	2170 U	2170	UG/KG	UJ	2170		ICRSD

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	2-Methylnaphthalene	435 U	435	UG/KG	UJ	435		ICRSD
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	4-Chloroaniline	435 U	435	UG/KG	UJ	435		ICRSD
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	435 U	435	UG/KG	UJ	435		ICRSD
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	Aniline	435 U	435	UG/KG	UJ	435		ICRSD
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	Hexachlorophene	870 U	870	UG/KG	UJ	870		ICRSD
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	o and/or p - Toluidine	435 U	435	UG/KG	UJ	435		ICRSD
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	838 U	838	UG/KG	UJ	838		ICRSD
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	2090 U	2090	UG/KG	UJ	2090		ICRSD
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	419 U	419	UG/KG	UJ	419		ICRSD
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	4-Chloroaniline	419 U	419	UG/KG	UJ	419		ICRSD
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	419 U	419	UG/KG	UJ	419		ICRSD
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	Aniline	419 U	419	UG/KG	UJ	419		ICRSD
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	Hexachlorophene	838 U	838	UG/KG	UJ	838		ICRSD
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	419 U	419	UG/KG	UJ	419		ICRSD
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	779 U	779	UG/KG	UJ	779		ICRSD
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	389 U	389	UG/KG	UJ	389		ICRSD
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	4-Chloroaniline	389 U	389	UG/KG	UJ	389		ICRSD
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	389 U	389	UG/KG	UJ	389		ICRSD
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	Hexachlorophene	779 U	779	UG/KG	UJ	779		ICRSD
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	389 U	389	UG/KG	UJ	389		ICRSD
SO	SVOC	20406050910	060304-SOI-02720-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	2180 U	2180	UG/KG	UJ	2180		ICRSD
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	436 U	436	UG/KG	UJ	436		ICRSD
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	4-Chloroaniline	436 U	436	UG/KG	UJ	436		ICRSD
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	436 U	436	UG/KG	UJ	436		ICRSD
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	Hexachlorophene	779 U	779	UG/KG	UJ	779		ICRSD
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	389 U	389	UG/KG	UJ	389		ICRSD
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	871 U	871	UG/KG	UJ	871		ICRSD
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	2180 U	2180	UG/KG	UJ	2180		ICRSD
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	436 U	436	UG/KG	UJ	436		ICRSD
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	4-Chloroaniline	436 U	436	UG/KG	UJ	436		ICRSD
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	436 U	436	UG/KG	UJ	436		ICRSD
SO	SVOC	20406050911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	1940 U	1940	UG/KG	UJ	1940		ICRSD
SO	SVOC	20406050911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	387 U	387	UG/KG	UJ	387		ICRSD
SO	SVOC	20406050911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	4-Chloroaniline	387 U	387	UG/KG	UJ	387		ICRSD
SO	SVOC	20406050911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	387 U	387	UG/KG	UJ	387		ICRSD
SO	SVOC	20406050911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	Hexachlorophene	387 U	387	UG/KG	UJ	387		ICRSD
SO	SVOC	20406050911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	775 U	775	UG/KG	UJ	775		ICRSD
SO	SVOC	20406050911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	2,4-Naphthoquinone	1940 U	1940	UG/KG	UJ	1940		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	387 U	387	UG/KG	UJ	387		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	931 U	931	UG/KG	UJ	931		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	2330 U	2330	UG/KG	UJ	2330		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	2,4-Naphthoquinone	466 U	466	UG/KG	UJ	466		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	4-Chloroaniline	466 U	466	UG/KG	UJ	466		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	466 U	466	UG/KG	UJ	466		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	Hexachlorophene	775 U	775	UG/KG	UJ	775		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	387 U	387	UG/KG	UJ	387		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	931 U	931	UG/KG	UJ	931		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	466 U	466	UG/KG	UJ	466		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	466 U	466	UG/KG	UJ	466		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	4-Chloroaniline	466 U	466	UG/KG	UJ	466		ICRSD
SO	SVOC	20406050912	060304-SOI-02722-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	466 U	466	UG/KG	UJ	466		ICRSD
SO	SVOC	20406050913	060304-SOI-02712-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	2060 U	2060	UG/KG	UJ	2060		ICRSD
SO	SVOC	20406050913	060304-SOI-02712-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	413 U	413	UG/KG	UJ	413		ICRSD
SO	SVOC	20406050913	060304-SOI-02712-00.5	N	SW8270C	SW3510C	4-Chloroaniline	413 U	413	UG/KG	UJ	413		ICRSD
SO	SVOC	20406050913	060304-SOI-02712-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	413 U	413	UG/KG	UJ	413		ICRSD
SO	SVOC	20406050913	060304-SOI-02712-00.5	N	SW8270C	SW3510C	Aniline	413 U	413	UG/KG	UJ	413		ICRSD
SO	SVOC	20406050913	060304-SOI-02712-00.5	N	SW8270C	SW3510C	Hexachlorophene	826 U	826	UG/KG	UJ	826		ICRSD
SO	SVOC	20406050913	060304-SOI-02712-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	2060 U	2060	UG/KG	UJ	2060		ICRSD
SO	SVOC	20406050913	060304-SOI-02712-00.5	N	SW8270C	SW3510C	2,4-Naphthoquinone	413 U	413	UG/KG	UJ	413		ICRSD
SO	SVOC	20406050913	060304-SOI-02712-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	2440 U	2440	UG/KG	UJ	2440		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	489 U	489	UG/KG	UJ	489		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	4-Chloroaniline	489 U	489	UG/KG	UJ	489		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	489 U	489	UG/KG	UJ	489		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	Aniline	489 U	489	UG/KG	UJ	489		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	Hexachlorophene	977 U	977	UG/KG	UJ	977		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	489 U	489	UG/KG	UJ	489		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	2,4-Naphthoquinone	2440 U	2440	UG/KG	UJ	2440		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	489 U	489	UG/KG	UJ	489		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	489 U	489	UG/KG	UJ	489		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	4-Chloroaniline	489 U	489	UG/KG	UJ	489		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	489 U	489	UG/KG	UJ	489		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	Aniline	489 U	489	UG/KG	UJ	489		ICRSD
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	Hexachlorophene	977 U	977	UG/KG	UJ	977	</	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	SVOC	20406050915	060404-SOI-02714-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	445 U	445	UG/KG	UJ	445		ICRSD
SO	SVOC	20406050915	060404-SOI-02714-00.5	N	SW8270C	SW3510C	Aniline	445 U	445	UG/KG	UJ	445		ICRSD
SO	SVOC	20406050915	060404-SOI-02714-00.5	N	SW8270C	SW3510C	Hexachlorophene	890 U	890	UG/KG	UJ	890		ICRSD
SO	SVOC	20406050915	060404-SOI-02714-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	445 U	445	UG/KG	UJ	445		ICRSD
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	892 U	892	UG/KG	UJ	892		ICRSD
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	2230 U	2230	UG/KG	UJ	2230		ICRSD
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	446 U	446	UG/KG	UJ	446		ICRSD
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	4-Chloroaniline	446 U	446	UG/KG	UJ	446		ICRSD
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	446 U	446	UG/KG	UJ	446		ICRSD
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	Aniline	446 U	446	UG/KG	UJ	446		ICRSD
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	Hexachlorophene	892 U	892	UG/KG	UJ	892		ICRSD
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	446 U	446	UG/KG	UJ	446		ICRSD
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	842 U	842	UG/KG	UJ	842		ICRSD
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	2100 U	2100	UG/KG	UJ	2100		ICRSD
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	421 U	421	UG/KG	UJ	421		ICRSD
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	4-Chloroaniline	421 U	421	UG/KG	UJ	421		ICRSD
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	421 U	421	UG/KG	UJ	421		ICRSD
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	Aniline	421 U	421	UG/KG	UJ	421		ICRSD
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	Hexachlorophene	842 U	842	UG/KG	UJ	842		ICRSD
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	421 U	421	UG/KG	UJ	421		ICRSD
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	935 U	935	UG/KG	UJ	935		ICRSD
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	467 U	467	UG/KG	UJ	467		ICRSD
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	4-Chloroaniline	467 U	467	UG/KG	UJ	467		ICRSD
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	467 U	467	UG/KG	UJ	467		ICRSD
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	Aniline	467 U	467	UG/KG	UJ	467		ICRSD
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	Hexachlorophene	935 U	935	UG/KG	UJ	935		ICRSD
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	467 U	467	UG/KG	UJ	467		ICRSD
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	1,4-Naphthoquinone	855 U	855	UG/KG	UJ	855		ICRSD
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	2140 U	2140	UG/KG	UJ	2140		ICRSD
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	2-Methylnaphthalene	428 U	428	UG/KG	UJ	428		ICRSD
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	4-Chloroaniline	428 U	428	UG/KG	UJ	428		ICRSD
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	428 U	428	UG/KG	UJ	428		ICRSD
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	Aniline	428 U	428	UG/KG	UJ	428		ICRSD
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	Hexachlorophene	855 U	855	UG/KG	UJ	855		ICRSD
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	o and/or p - Toluidine	428 U	428	UG/KG	UJ	428		ICRSD
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	1,4-Naphthoquinone	852 U	852	UG/KG	UJ	852		ICRSD
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	2,4-Dinitrophenol	2130 U	2130	UG/KG	UJ	2130		ICRSD
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	2-Methylnaphthalene	426 U	426	UG/KG	UJ	426		ICRSD
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	4-Chloroaniline	426 U	426	UG/KG	UJ	426		ICRSD
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	426 U	426	UG/KG	UJ	426		ICRSD
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	Aniline	426 U	426	UG/KG	UJ	426		ICRSD
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	Hexachlorophene	852 U	852	UG/KG	UJ	852		ICRSD
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	o and/or p - Toluidine	426 U	426	UG/KG	UJ	426		ICRSD
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	1,4-Naphthoquinone	772 U	772	UG/KG	UJ	772		ICRSD
SED	SVOC	20406302301	062804-SED-02691-00.2	N	SW8270C	SW3510C	Hexachlorophene	772 U	772	UG/KG	UJ	772		ICRSD
SED	SVOC	20406302302	062804-SED-02692-00.2	N	SW8270C	SW3510C	Hexachlorophene	808 U	808	UG/KG	UJ	808		ICRSD
SED	SVOC	20406302303	062804-SED-02693-00.2	N	SW8270C	SW3510C	Hexachlorophene	782 U	782	UG/KG	UJ	782		ICRSD
SED	SVOC	20406302304	062804-SED-02694-00.2	N	SW8270C	SW3510C	Hexachlorophene	732 U	732	UG/KG	UJ	732		ICRSD
SED	SVOC	20406302305	062904-SED-02699-00.2	N	SW8270C	SW3510C	Hexachlorophene	751 U	751	UG/KG	UJ	751		ICRSD
SED	SVOC	20406302306	062904-SED-02700-00.2	N	SW8270C	SW3510C	Hexachlorophene	749 U	749	UG/KG	UJ	749		ICRSD
SED	SVOC	20406302307	062904-SED-02701-00.2	N	SW8270C	SW3510C	Hexachlorophene	805 U	805	UG/KG	UJ	805		ICRSD
SED	SVOC	20406302308	062904-SED-02702-00.2	N	SW8270C	SW3510C	Hexachlorophene	731 U	731	UG/KG	UJ	731		ICRSD
SED	SVOC	20406302309	062904-SED-02731-00.2	N	SW8270C	SW3510C	Hexachlorophene	790 U	790	UG/KG	UJ	790		ICRSD
SED	SVOC	20406302312	062904-SED-02732-00.2	N	SW8270C	SW3510C	Hexachlorophene	834 U	834	UG/KG	UJ	834		ICRSD
SED	SVOC	20406302313	062904-SED-02733-00.2	N	SW8270C	SW3510C	Hexachlorophene	798 U	798	UG/KG	UJ	798		ICRSD
SED	SVOC	20406302314	062904-SED-02734-00.2	N	SW8270C	SW3510C	Hexachlorophene	779 U	779	UG/KG	UJ	779		ICRSD
SED	SVOC	20406302315	062904-SED-02734-00.2-D	FD	SW8270C	SW3510C	Hexachlorophene	776 U	776	UG/KG	UJ	776		ICRSD
SED	SVOC	20407020801	063004-SED-02707-00.2	N	SW8270C	SW3510C	1,4-Naphthoquinone	781 U	781	UG/KG	UJ	781		ICRSD
SED	SVOC	20407020801	063004-SED-02707-00.2	N	SW8270C	SW3510C	Acetophenone	391 U	391	UG/KG	UJ	391		ICRSD
SED	SVOC	20407020801	063004-SED-02707-00.2	N	SW8270C	SW3510C	4-Chloroaniline	391 U	391	UG/KG	UJ	391		ICRSD
SED	SVOC	20407020801	063004-SED-02707-00.2	N	SW8270C	SW3510C	Aniline	391 U	391	UG/KG	UJ	391		ICRSD
SED	SVOC	20407020801	063004-SED-02707-00.2	N	SW8270C	SW3510C	Hexabromobenzene	391 U	391	UG/KG	UJ	391		ICRSD
SED	SVOC	20407020801	063004-SED-02707-00.2	N	SW8270C	SW3510C	Hexachlorophene	781 U	781	UG/KG	UJ	781		ICRSD
SED	SVOC	20407020801	063004-SED-02707-00.2	N	SW8270C	SW3510C	o and/or p - Toluidine	391 U	391	UG/KG	UJ	391		ICRSD

Table B.1

Validation Summary - Changed Qualifiers

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SED	SVOC	20407020812	063004-SED-02723-00.2	N	SW8270C	SW3510C	4-Chloroaniline	391	U	391	UG/KG	UJ	391	ICRSD
SED	SVOC	20407020812	063004-SED-02723-00.2	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	391	U	391	UG/KG	UJ	391	ICRSD
SED	SVOC	20407020812	063004-SED-02723-00.2	N	SW8270C	SW3510C	Acetophenone	391	U	391	UG/KG	UJ	391	ICRSD
SED	SVOC	20407020812	063004-SED-02723-00.2	N	SW8270C	SW3510C	Aniline	391	U	391	UG/KG	UJ	391	ICRSD
SED	SVOC	20407020812	063004-SED-02723-00.2	N	SW8270C	SW3510C	Hexabromobenzene	391	U	391	UG/KG	UJ	391	ICRSD
SED	SVOC	20407020812	063004-SED-02723-00.2	N	SW8270C	SW3510C	Hexachlorophene	783	U	783	UG/KG	UJ	783	ICRSD
SED	SVOC	20407020812	063004-SED-02723-00.2	N	SW8270C	SW3510C	o and/or p - Toluidine	391	U	391	UG/KG	UJ	391	ICRSD
SED	SVOC	20407020813	063004-SED-02724-00.2	N	SW8270C	SW3510C	1,4-Naphthoquinone	748	U	748	UG/KG	UJ	748	ICRSD
SED	SVOC	20407020813	063004-SED-02724-00.2	N	SW8270C	SW3510C	4-Chloroaniline	374	U	374	UG/KG	UJ	374	ICRSD
SED	SVOC	20407020813	063004-SED-02724-00.2	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	374	U	374	UG/KG	UJ	374	ICRSD
SED	SVOC	20407020813	063004-SED-02724-00.2	N	SW8270C	SW3510C	Acetophenone	374	U	374	UG/KG	UJ	374	ICRSD
SED	SVOC	20407020813	063004-SED-02724-00.2	N	SW8270C	SW3510C	Aniline	374	U	374	UG/KG	UJ	374	ICRSD
SED	SVOC	20407020813	063004-SED-02724-00.2	N	SW8270C	SW3510C	Hexabromobenzene	374	U	374	UG/KG	UJ	374	ICRSD
SED	SVOC	20407020813	063004-SED-02724-00.2	N	SW8270C	SW3510C	Hexachlorophene	748	U	748	UG/KG	UJ	748	ICRSD
SED	SVOC	20407020813	063004-SED-02724-00.2	N	SW8270C	SW3510C	o and/or p - Toluidine	374	U	374	UG/KG	UJ	374	ICRSD
SED	SVOC	20407020814	063004-SED-02725-00.2	N	SW8270C	SW3510C	1,4-Naphthoquinone	820	U	820	UG/KG	UJ	820	ICRSD
SED	SVOC	20407020814	063004-SED-02725-00.2	N	SW8270C	SW3510C	4-Chloroaniline	410	U	410	UG/KG	UJ	410	ICRSD
SED	SVOC	20407020814	063004-SED-02725-00.2	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	410	U	410	UG/KG	UJ	410	ICRSD
SED	SVOC	20407020814	063004-SED-02725-00.2	N	SW8270C	SW3510C	Acetophenone	410	U	410	UG/KG	UJ	410	ICRSD
SED	SVOC	20407020814	063004-SED-02725-00.2	N	SW8270C	SW3510C	Aniline	410	U	410	UG/KG	UJ	410	ICRSD
SED	SVOC	20407020814	063004-SED-02725-00.2	N	SW8270C	SW3510C	Hexabromobenzene	410	U	410	UG/KG	UJ	410	ICRSD
SED	SVOC	20407020814	063004-SED-02725-00.2	N	SW8270C	SW3510C	Hexachlorophene	820	U	820	UG/KG	UJ	820	ICRSD
SED	SVOC	20407020814	063004-SED-02725-00.2	N	SW8270C	SW3510C	o and/or p - Toluidine	410	U	410	UG/KG	UJ	410	ICRSD
SED	SVOC	20407020815	063004-SED-02726-00.2	N	SW8270C	SW3510C	1,4-Naphthoquinone	797	U	797	UG/KG	UJ	797	ICRSD
SED	SVOC	20407020815	063004-SED-02726-00.2	N	SW8270C	SW3510C	4-Chloroaniline	398	U	398	UG/KG	UJ	398	ICRSD
SED	SVOC	20407020815	063004-SED-02726-00.2	N	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	398	U	398	UG/KG	UJ	398	ICRSD
SED	SVOC	20407020815	063004-SED-02726-00.2	N	SW8270C	SW3510C	Acetophenone	398	U	398	UG/KG	UJ	398	ICRSD
SED	SVOC	20407020815	063004-SED-02726-00.2	N	SW8270C	SW3510C	Aniline	398	U	398	UG/KG	UJ	398	ICRSD
SED	SVOC	20407020815	063004-SED-02726-00.2	N	SW8270C	SW3510C	Hexabromobenzene	398	U	398	UG/KG	UJ	398	ICRSD
SED	SVOC	20407020815	063004-SED-02726-00.2	N	SW8270C	SW3510C	Hexachlorophene	797	U	797	UG/KG	UJ	797	ICRSD
SED	SVOC	20407020815	063004-SED-02726-00.2	N	SW8270C	SW3510C	o and/or p - Toluidine	398	U	398	UG/KG	UJ	398	ICRSD
SED	SVOC	20407020816	063004-SED-02726-00.2-D	FD	SW8270C	SW3510C	1,4-Naphthoquinone	800	U	800	UG/KG	UJ	800	ICRSD
SED	SVOC	20407020816	063004-SED-02726-00.2-D	FD	SW8270C	SW3510C	4-Chloroaniline	400	U	400	UG/KG	UJ	400	ICRSD
SED	SVOC	20407020816	063004-SED-02726-00.2-D	FD	SW8270C	SW3510C	4-Nitroquinoline-1-oxide	400	U	400	UG/KG	UJ	400	ICRSD
SED	SVOC	20407020816	063004-SED-02726-00.2-D	FD	SW8270C	SW3510C	Acetophenone	400	U	400	UG/KG	UJ	400	ICRSD
SED	SVOC	20407020816	063004-SED-02726-00.2-D	FD	SW8270C	SW3510C	Aniline	400	U	400	UG/KG	UJ	400	ICRSD
SED	SVOC	20407020816	063004-SED-02726-00.2-D	FD	SW8270C	SW3510C	Hexabromobenzene	400	U	400	UG/KG	UJ	400	ICRSD
SED	SVOC	20407020816	063004-SED-02726-00.2-D	FD	SW8270C	SW3510C	Hexachlorophene	800	U	800	UG/KG	UJ	800	ICRSD
SED	SVOC	20407020816	063004-SED-02726-00.2-D	FD	SW8270C	SW3510C	o and/or p - Toluidine	400	U	400	UG/KG	UJ	400	ICRSD
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8081A	SW3510C	Diallate (Avadex)	58.3	U	58.3	UG/KG	UJ	58.3	ICRSD, CCVL
SO	SVOC	20406032401	060104-SOI-02687-02.0	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	770	U	770	UG/KG	UJ	770	ICRSD, CCVL
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8081A	SW3510C	Diallate (Avadex)	27.3	U	27.3	UG/KG	UJ	27.3	ICRSD, CCVL
SO	SVOC	20406032402	060104-SOI-02688-02.0	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	361	U	361	UG/KG	UJ	361	ICRSD, CCVL
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8081A	SW3510C	Diallate (Avadex)	30.1	U	30.1	UG/KG	UJ	30.1	ICRSD, CCVL
SO	SVOC	20406032403	060104-SOI-02689-00.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	397	U	397	UG/KG	UJ	397	ICRSD, CCVL
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8081A	SW3510C	Diallate (Avadex)	56.3	U	56.3	UG/KG	UJ	56.3	ICRSD, CCVL
SO	SVOC	20406032404	060104-SOI-02688-04.0	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	371	U	371	UG/KG	UJ	371	ICRSD, CCVL
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	395	U	395	UG/KG	UJ	395	ICRSD, CCVL
SO	SVOC	20406032406	060104-SOI-02688-07.0	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	371	U	371	UG/KG	UJ	371	ICRSD, CCVL
SO	SVOC	20406032407	060104-SOI-02687-04.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	825	U	825	UG/KG	UJ	825	ICRSD, CCVL
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8081A	SW3510C	Diallate (Avadex)	27.8	U	27.8	UG/KG	UJ	27.8	ICRSD, CCVL
SO	SVOC	20406032408	060104-SOI-02688-06.0	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	367	U	367	UG/KG	UJ	367	ICRSD, CCVL
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	387	U	387	UG/KG	UJ	387	ICRSD, CCVL
SO	SVOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	388	U	388	UG/KG	UJ	388	ICRSD, CCVL
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	380	U	380	UG/KG	UJ	380	ICRSD, CCVL
SO	SVOC	20406032414	060104-SOI-02687-00.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	390	U	390	UG/KG	UJ	390	ICRSD, CCVL
SO	SVOC	20406032415	060104-SOI-02689-02.0	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	376	U	376	UG/KG	UJ	376	ICRSD, CCVL
SO	SVOC	20406032416	060104-SOI-02688-00.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	353	U	353	UG/KG	UJ	353	ICRSD, CCVL
SO	SVOC	20406042510	060204-SOI-02697-02.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	383	U	383	UG/KG	UJ	383	ICRSD, CCVL
SO	SVOC	20406042511	060204-SOI-02696-02.0	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	445	U	445	UG/KG	UJ	445	ICRSD, CCVL
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	388	U	388	UG/KG	UJ	388	ICRSD, CCVL
SO	SVOC	20406050902	060304-SOI-02705-00.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	390	U	390	UG/KG	UJ	390	ICRSD, CCVL
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	358	U	358	UG/KG	UJ	358	ICRSD, CCVL
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	n-Nitrosomethyl ethylamine	391	U	391	UG/KG	UJ	391	ICRSD, CCVL

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	n-Nitrosomethylethylamine	435 U	435	UG/KG	UJ	435	ICRSD, CCVL	
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	419 U	419	UG/KG	UJ	419	ICRSD, CCVL	
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	389 U	389	UG/KG	UJ	389	ICRSD, CCVL	
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	436 U	436	UG/KG	UJ	436	ICRSD, CCVL	
SO	SVOC	20406050911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	387 U	387	UG/KG	UJ	387	ICRSD, CCVL	
SO	SVOC	20406050912	060404-SOI-02711-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	466 U	466	UG/KG	UJ	466	ICRSD, CCVL	
SO	SVOC	20406050913	060404-SOI-02712-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	413 U	413	UG/KG	UJ	413	ICRSD, CCVL	
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	489 U	489	UG/KG	UJ	489	ICRSD, CCVL	
SO	SVOC	20406050915	060404-SOI-02714-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	445 U	445	UG/KG	UJ	445	ICRSD, CCVL	
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	446 U	446	UG/KG	UJ	446	ICRSD, CCVL	
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	421 U	421	UG/KG	UJ	421	ICRSD, CCVL	
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	467 U	467	UG/KG	UJ	467	ICRSD, CCVL	
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	428 U	428	UG/KG	UJ	428	ICRSD, CCVL	
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	n-Nitrosomethylethylamine	426 U	426	UG/KG	UJ	426	ICRSD, CCVL	
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Diallate (Avadex)	30 U	30	UG/KG	UJ	30	ICRSD, CCVL, SSL	
SO	SVOC	20406032409	060104-SOI-02690-05.5	N	SW8081A	SW3510C	Diallate (Avadex)	58.7 U	58.7	UG/KG	UJ	58.7	ICRSD, CCVL, SSL	
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Diallate (Avadex)	28.8 U	28.8	UG/KG	UJ	28.8	ICRSD, CCVL, SSL	
SO	SVOC	20406050901	060304-SOI-02703-00.5	N	SW8270C	SW3510C	Hexabromobenzene	388 U	388	UG/KG	UJ	388	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050902	060304-SOI-02703-00.5-D	FD	SW8270C	SW3510C	Hexabromobenzene	390 U	390	UG/KG	UJ	390	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050903	060304-SOI-02706-00.5	N	SW8270C	SW3510C	Hexabromobenzene	358 U	358	UG/KG	UJ	358	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050904	060304-SOI-02704-00.5	N	SW8270C	SW3510C	Hexabromobenzene	391 U	391	UG/KG	UJ	391	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8270C	SW3510C	Hexabromobenzene	435 U	435	UG/KG	UJ	435	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050906	060304-SOI-02719-00.5	N	SW8270C	SW3510C	Hexabromobenzene	419 U	419	UG/KG	UJ	419	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	Hexabromobenzene	389 U	389	UG/KG	UJ	389	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050910	060304-SOI-02721-00.5	N	SW8270C	SW3510C	Hexabromobenzene	436 U	436	UG/KG	UJ	436	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050911	060304-SOI-02722-00.5	N	SW8270C	SW3510C	Hexabromobenzene	387 U	387	UG/KG	UJ	387	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050912	060404-SOI-02711-00.5	N	SW8270C	SW3510C	Hexabromobenzene	466 U	466	UG/KG	UJ	466	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050913	060404-SOI-02712-00.5	N	SW8270C	SW3510C	Hexabromobenzene	413 U	413	UG/KG	UJ	413	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050914	060404-SOI-02713-00.5	N	SW8270C	SW3510C	Hexabromobenzene	489 U	489	UG/KG	UJ	489	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050915	060404-SOI-02714-00.5	N	SW8270C	SW3510C	Hexabromobenzene	445 U	445	UG/KG	UJ	445	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050916	060404-SOI-02727-00.5	N	SW8270C	SW3510C	Hexabromobenzene	446 U	446	UG/KG	UJ	446	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050917	060404-SOI-02728-00.5	N	SW8270C	SW3510C	Hexabromobenzene	421 U	421	UG/KG	UJ	421	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	Hexabromobenzene	467 U	467	UG/KG	UJ	467	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050919	060404-SOI-02730-00.5	N	SW8270C	SW3510C	Hexabromobenzene	428 U	428	UG/KG	UJ	428	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8270C	SW3510C	Hexabromobenzene	426 U	426	UG/KG	UJ	426	ICRSD, ICRRF, CCRRF	
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	2340 U	2340	UG/KG	UJ	2340	ICRSD, MSDL	
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	Aniline	389 U	389	UG/KG	UJ	389	ICRSD, MSL	
SED	SVOC	20407020803	063004-SED-02708-00.2-D	FD	SW8270C	SW3510C	Aniline	416 U	416	UG/KG	UJ	416	ICRSD, MSL	
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	2,4-Dinitrophenol	1950 U	1950	UG/KG	UJ	1950	ICRSD, MSL, MSDL	
SED	SVOC	20406302301	062804-SED-02691-00.2	N	SW8270C	SW3510C	m,p-Cresol	386 U	386	UG/KG	UJ	386	LCSL	
SED	SVOC	20406302301	062804-SED-02691-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	386 U	386	UG/KG	UJ	386	LCSL	
SED	SVOC	20406302301	062804-SED-02691-00.2	N	SW8270C	SW3510C	Pyridine	386 U	386	UG/KG	UJ	386	LCSL	
SED	SVOC	20406302302	062804-SED-02692-00.2	N	SW8270C	SW3510C	m,p-Cresol	404 U	404	UG/KG	UJ	404	LCSL	
SED	SVOC	20406302302	062804-SED-02692-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	404 U	404	UG/KG	UJ	404	LCSL	
SED	SVOC	20406302302	062804-SED-02692-00.2	N	SW8270C	SW3510C	Pyridine	404 U	404	UG/KG	UJ	404	LCSL	
SED	SVOC	20406302303	062804-SED-02693-00.2	N	SW8270C	SW3510C	m,p-Cresol	391 U	391	UG/KG	UJ	391	LCSL	
SED	SVOC	20406302303	062804-SED-02693-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	391 U	391	UG/KG	UJ	391	LCSL	
SED	SVOC	20406302303	062804-SED-02693-00.2	N	SW8270C	SW3510C	Pyridine	391 U	391	UG/KG	UJ	391	LCSL	
SED	SVOC	20406302304	062804-SED-02694-00.2	N	SW8270C	SW3510C	m,p-Cresol	366 U	366	UG/KG	UJ	366	LCSL	
SED	SVOC	20406302304	062804-SED-02694-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	366 U	366	UG/KG	UJ	366	LCSL	
SED	SVOC	20406302304	062804-SED-02694-00.2	N	SW8270C	SW3510C	Pyridine	366 U	366	UG/KG	UJ	366	LCSL	
SED	SVOC	20406302304	062804-SED-02694-00.2	N	SW8270C	SW3510C	m,p-Cresol	376 U	376	UG/KG	UJ	376	LCSL	
SED	SVOC	20406302305	062904-SED-02699-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	376 U	376	UG/KG	UJ	376	LCSL	
SED	SVOC	20406302305	062904-SED-02699-00.2	N	SW8270C	SW3510C	Pyridine	376 U	376	UG/KG	UJ	376	LCSL	
SED	SVOC	20406302306	062904-SED-02700-00.2	N	SW8270C	SW3510C	m,p-Cresol	374 U	374	UG/KG	UJ	374	LCSL	
SED	SVOC	20406302306	062904-SED-02700-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	374 U	374	UG/KG	UJ	374	LCSL	
SED	SVOC	20406302306	062904-SED-02700-00.2	N	SW8270C	SW3510C	Pyridine	374 U	374	UG/KG	UJ	374	LCSL	
SED	SVOC	20406302307	062904-SED-02701-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	403 U	403	UG/KG	UJ	403	LCSL	
SED	SVOC	20406302307	062904-SED-02701-00.2	N	SW8270C	SW3510C	Pyridine	403 U	403	UG/KG	UJ	403	LCSL	
SED	SVOC	20406302309	062904-SED-02731-00.2	N	SW8270C	SW3510C	m,p-Cresol	395 U	395	UG/KG	UJ	395	LCSL	
SED	SVOC	20406302309	062904-SED-02731-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	395 U	395	UG/KG	UJ	395	LCSL	
SED	SVOC	20406302312	062904-SED-02732-00.2	N	SW8270C	SW3510C	Pyridine	395 U	395	UG/KG	UJ	395	LCSL	
SED	SVOC	20406302312	062904-SED-02732-00.2	N	SW8270C	SW3510C	m,p-Cresol	417 U	417	UG/KG	UJ	417	LCSL	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SED	SVOC	20406302312	062904-SED-02732-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	417 U	417	UG/KG	UJ	417	LCSL	
SED	SVOC	20406302312	062904-SED-02732-00.2	N	SW8270C	SW3510C	Pyridine	417 U	417	UG/KG	UJ	417	LCSL	
SED	SVOC	20406302313	062904-SED-02733-00.2	N	SW8270C	SW3510C	m,p-Cresol	399 U	399	UG/KG	UJ	399	LCSL	
SED	SVOC	20406302313	062904-SED-02733-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	399 U	399	UG/KG	UJ	399	LCSL	
SED	SVOC	20406302313	062904-SED-02733-00.2	N	SW8270C	SW3510C	Pyridine	399 U	399	UG/KG	UJ	399	LCSL	
SED	SVOC	20406302314	062904-SED-02734-00.2	N	SW8270C	SW3510C	m,p-Cresol	390 U	390	UG/KG	UJ	390	LCSL	
SED	SVOC	20406302314	062904-SED-02734-00.2	N	SW8270C	SW3510C	n-Nitrosomethylethylamine	390 U	390	UG/KG	UJ	390	LCSL	
SED	SVOC	20406302314	062904-SED-02734-00.2	N	SW8270C	SW3510C	Pyridine	390 U	390	UG/KG	UJ	390	LCSL	
SED	SVOC	20406302315	062904-SED-02734-00.2-D	FD	SW8270C	SW3510C	m,p-Cresol	388 U	388	UG/KG	UJ	388	LCSL	
SED	SVOC	20406302315	062904-SED-02734-00.2-D	FD	SW8270C	SW3510C	n-Nitrosomethylethylamine	388 U	388	UG/KG	UJ	388	LCSL	
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	Hexachloroethane	389 U	389	UG/KG	UJ	389	MSDL	
SO	SVOC	20406050918	060404-SOI-02729-00.5	N	SW8270C	SW3510C	4,6-Dinitro-2-methylphenol	2340 U	2340	UG/KG	UJ	2340	MSDL	
SO	SVOC	20406050907	060304-SOI-02720-00.5	N	SW8270C	SW3510C	4,6-Dinitro-2-methylphenol	1950 U	1950	UG/KG	UJ	1950	MSL, MSDL	
SO	SVOC	20406032405	060104-SOI-02689-04.5	N	SW8081A	SW3510C	Chlorobenzilate	30 U	30	UG/KG	UJ	30	SSL	
SO	SVOC	20406032409	060104-SOI-02690-00.5	N	SW8081A	SW3510C	Chlorobenzilate	58.7 U	58.7	UG/KG	UJ	58.7	SSL	
SO	SVOC	20406032413	060104-SOI-02690-02.0	N	SW8081A	SW3510C	Chlorobenzilate	28.8 U	28.8	UG/KG	UJ	28.8	SSL	
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Chlorobenzilate	33 U	33	UG/KG	UJ	33	SSL	
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Diallate (Avadex)	33 U	33	UG/KG	UJ	33	SSL	
SO	SVOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8081A	SW3510C	Isodrin	33 U	33	UG/KG	UJ	33	SSL	
SO	SVOC	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Chlorobenzilate	35.3 U	35.3	UG/KG	UJ	35.3	SSL	
SO	SVOC	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Diallate (Avadex)	35.3 U	35.3	UG/KG	UJ	35.3	SSL	
SO	SVOC	20406050912	060404-SOI-02711-00.5	N	SW8081A	SW3510C	Isodrin	35.3 U	35.3	UG/KG	UJ	35.3	SSL	
SED	VOC	20407020803	063004-SED-02708-00.2-D	FD	SW8260B	NONE	ACETONITRILE	4.39 U	4.39	UG/KG	UJ	97	CRRF	
SED	VOC	20407020802	063004-SED-02708-00.2	N	SW8260B	NONE	METHYL ETHYL KETONE (2-BUTANONE)	0.342 U	0.342	UG/KG	UJ	5.48	CRRF	
SED	VOC	20407020803	063004-SED-02708-00.2-D	FD	SW8260B	NONE	METHYL ETHYL KETONE (2-BUTANONE)	0.303 U	0.303	UG/KG	UJ	4.85	CRRF	
SED	VOC	20407020802	063004-SED-02708-00.2	N	SW8260B	NONE	ACETONITRILE	4.95 U	4.95	UG/KG	UJ	110	CRRF	
SED	VOC	20407020810	063004-SED-02717-00.2	N	SW8260B	NONE	METHYL ETHYL KETONE (2-BUTANONE)	0.354 U	0.354	UG/KG	UJ	5.67	CRRF	
SED	VOC	20407020810	063004-SED-02717-00.2	N	SW8260B	NONE	ACETONITRILE	5.13 U	5.13	UG/KG	UJ	113	CRRF	
SED	VOC	20407020812	063004-SED-02723-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.426 U	0.426	UG/KG	UJ	4.21	CCVL	
SED	VOC	20407020814	063004-SED-02725-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.425 U	0.425	UG/KG	UJ	4.2	CCVL	
SED	VOC	20407020807	063004-SED-02710-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.429 U	0.429	UG/KG	UJ	4.24	CCVL	
SED	VOC	20407020813	063004-SED-02724-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.456 U	0.456	UG/KG	UJ	4.5	CCVL	
SED	VOC	20407020810	063004-SED-02717-00.2	N	SW8260B	NONE	CHLOROETHANE	0.687 U	0.687	UG/KG	UJ	5.67	CCVL	
SED	VOC	20407020811	063004-SED-02718-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.532 U	0.532	UG/KG	UJ	5.25	CCVL	
SED	VOC	20407020802	063004-SED-02708-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.554 U	0.554	UG/KG	UJ	5.48	CCVL	
SED	VOC	20407020802	063004-SED-02708-00.2	N	SW8260B	NONE	CHLOROETHANE	0.664 U	0.664	UG/KG	UJ	5.48	CCVL	
SED	VOC	20407020809	063004-SED-02716-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.437 U	0.437	UG/KG	UJ	4.32	CCVL	
SED	VOC	20407020810	063004-SED-02717-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.574 U	0.574	UG/KG	UJ	5.67	CCVL	
SED	VOC	20407020806	063004-SED-02709-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.468 U	0.468	UG/KG	UJ	4.63	CCVL	
SED	VOC	20407020816	063004-SED-02726-00.2-D	FD	SW8260B	NONE	PENTOCHLORETHANE	0.466 U	0.466	UG/KG	UJ	4.61	CCVL	
SED	VOC	20407020803	063004-SED-02708-00.2-D	FD	SW8260B	NONE	CHLOROETHANE	0.588 U	0.588	UG/KG	UJ	4.85	CCVL,ICRSD	
SED	VOC	20406302304	062804-SED-02694-00.2	N	SW8260B	NONE	ACROLEIN	1.85 U	1.85	UG/KG	UJ	19.7	ICRFF	
SED	VOC	20406302304	062804-SED-02694-00.2	N	SW8260B	NONE	PROPIONITRILE	0.788 U	0.788	UG/KG	UJ	3.94	ICRFF	
SED	VOC	20406302304	062804-SED-02694-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	78.8 U	78.8	UG/KG	UJ	78.8	ICRFF	
SED	VOC	20406302305	062904-SED-02699-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	73.7 U	73.7	UG/KG	UJ	73.7	ICRFF	
SED	VOC	20406302314	062904-SED-02734-00.2	N	SW8260B	NONE	ACROLEIN	2.26 U	2.26	UG/KG	UJ	24.1	ICRFF	
SED	VOC	20406302314	062904-SED-02734-00.2	N	SW8260B	NONE	PROPIONITRILE	0.965 U	0.965	UG/KG	UJ	4.82	ICRFF	
SED	VOC	20406302314	062904-SED-02734-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	96.5 U	96.5	UG/KG	UJ	96.5	ICRFF	
SED	VOC	20406302314	062904-SED-02734-00.2	N	SW8260B	NONE	ACETONITRILE	4.36 U	4.36	UG/KG	UJ	96.5	ICRFF	
SED	VOC	20406302314	062904-SED-02734-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.965 U	0.965	UG/KG	UJ	4.82	ICRFF	
SED	VOC	20406302303	062804-SED-02693-00.2	N	SW8260B	NONE	ACROLEIN	2.2 U	2.2	UG/KG	UJ	23.6	ICRFF	
SED	VOC	20406302303	062804-SED-02693-00.2	N	SW8260B	NONE	PROPIONITRILE	0.942 U	0.942	UG/KG	UJ	4.71	ICRFF	
SED	VOC	20406302305	062904-SED-02699-00.2	N	SW8260B	NONE	ACETONITRILE	3.33 U	3.33	UG/KG	UJ	73.7	ICRFF	
SED	VOC	20406302305	062904-SED-02699-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.737 U	0.737	UG/KG	UJ	3.69	ICRFF	
SED	VOC	20406302315	062904-SED-02734-00.2-D	FD	SW8260B	NONE	ACROLEIN	2.28 U	2.28	UG/KG	UJ	24.4	ICRFF	
SED	VOC	20406302315	062904-SED-02734-00.2-D	FD	SW8260B	NONE	TETRAHYDROFURAN	97.6 U	97.6	UG/KG	UJ	97.6	ICRFF	
SED	VOC	20406302315	062904-SED-02734-00.2-D	FD	SW8260B	NONE	ACETONITRILE	4.41 U	4.41	UG/KG	UJ	97.6	ICRFF	
SED	VOC	20406302307	062904-SED-02701-00.2	N	SW8260B	NONE	ACROLEIN	1.93 U	1.93	UG/KG	UJ	20.6	ICRFF	
SED	VOC	20406302307	062904-SED-02701-00.2	N	SW8260B	NONE	PROPIONITRILE	0.823 U	0.823	UG/KG	UJ	4.12	ICRFF	
SED	VOC	20406302307	062904-SED-02701-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	82.3 U	82.3	UG/KG	UJ	82.3	ICRFF	
SED	VOC	20406302307	062904-SED-02701-00.2	N	SW8260B	NONE	ACETONITRILE	3.72 U	3.72	UG/KG	UJ	82.3	ICRFF	
SED	VOC	20406302307	062904-SED-02701-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.823 U	0.823	UG/KG	UJ	4.12	ICRFF	
SED	VOC	20406302313	062904-SED-02733-00.2	N	SW8260B	NONE	ACROLEIN	2.44 U	2.44	UG/KG	UJ	26	ICRFF	
SED	VOC	20406302313	062904-SED-02733-00.2	N	SW8260B	NONE	PROPIONITRILE	1.04 U	1.04	UG/KG	UJ	5.21	ICRFF	
SED	VOC	20406302313	062904-SED-02733-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	104 U	104	UG/KG	UJ	104	ICRFF	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SED VOC	20406302302	062804-SED-02692-00.2	N	SW8260B	NONE	ACROLEIN	2.28 U	2.28	UG/KG	UJ		24.3	ICRRF	
SED VOC	20406302302	062804-SED-02692-00.2	N	SW8260B	NONE	PROPIONITRILE	0.973 U	0.973	UG/KG	UJ		4.87	ICRRF	
SED VOC	20406302302	062804-SED-02692-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	97.3 U	97.3	UG/KG	UJ		97.3	ICRRF	
SED VOC	20406302302	062804-SED-02692-00.2	N	SW8260B	NONE	ACETONITRILE	4.4 U	4.4	UG/KG	UJ		97.3	ICRRF	
SED VOC	20406302302	062804-SED-02692-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.973 U	0.973	UG/KG	UJ		4.87	ICRRF	
SED VOC	20406302309	062904-SED-02731-00.2	N	SW8260B	NONE	ACROLEIN	2.21 U	2.21	UG/KG	UJ		23.6	ICRRF	
SED VOC	20406302309	062904-SED-02731-00.2	N	SW8260B	NONE	PROPIONITRILE	0.945 U	0.945	UG/KG	UJ		4.73	ICRRF	
SED VOC	20406302309	062904-SED-02731-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	94.5 U	94.5	UG/KG	UJ		94.5	ICRRF	
SED VOC	20406302309	062904-SED-02731-00.2	N	SW8260B	NONE	ACETONITRILE	4.27 U	4.27	UG/KG	UJ		94.5	ICRRF	
SED VOC	20406302309	062904-SED-02731-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.945 U	0.945	UG/KG	UJ		4.73	ICRRF	
SED VOC	20406302301	062804-SED-02691-00.2	N	SW8260B	NONE	ACROLEIN	2.06 U	2.06	UG/KG	UJ		22	ICRRF	
SED VOC	20406302301	062804-SED-02691-00.2	N	SW8260B	NONE	PROPIONITRILE	0.879 U	0.879	UG/KG	UJ		4.39	ICRRF	
SED VOC	20406302301	062804-SED-02691-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	87.9 U	87.9	UG/KG	UJ		87.9	ICRRF	
SED VOC	20406302301	062804-SED-02691-00.2	N	SW8260B	NONE	ACETONITRILE	3.97 U	3.97	UG/KG	UJ		87.9	ICRRF	
SED VOC	20406302301	062804-SED-02691-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.879 U	0.879	UG/KG	UJ		4.39	ICRRF	
SED VOC	20406302308	062904-SED-02702-00.2	N	SW8260B	NONE	ACROLEIN	1.7 U	1.7	UG/KG	UJ		18.1	ICRRF	
SED VOC	20406302308	062904-SED-02702-00.2	N	SW8260B	NONE	PROPIONITRILE	0.725 U	0.725	UG/KG	UJ		3.63	ICRRF	
SED VOC	20406302308	062904-SED-02702-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	72.5 U	72.5	UG/KG	UJ		72.5	ICRRF	
SED VOC	20406302304	062804-SED-02694-00.2	N	SW8260B	NONE	ACETONITRILE	3.56 U	3.56	UG/KG	UJ		78.8	ICRRF	
SED VOC	20406302304	062804-SED-02694-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.788 U	0.788	UG/KG	UJ		3.94	ICRRF	
SED VOC	20406302313	062904-SED-02733-00.2	N	SW8260B	NONE	ACETONITRILE	4.71 U	4.71	UG/KG	UJ		104	ICRRF	
SED VOC	20406302313	062904-SED-02733-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.04 U	1.04	UG/KG	UJ		5.21	ICRRF	
SED VOC	20406302303	062804-SED-02693-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	94.2 U	94.2	UG/KG	UJ		94.2	ICRRF	
SED VOC	20406302303	062804-SED-02693-00.2	N	SW8260B	NONE	ACETONITRILE	4.26 U	4.26	UG/KG	UJ		94.2	ICRRF	
SED VOC	20406302303	062804-SED-02693-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.942 U	0.942	UG/KG	UJ		4.71	ICRRF	
SED VOC	20406302306	062904-SED-02700-00.2	N	SW8260B	NONE	ACROLEIN	1.75 U	1.75	UG/KG	UJ		18.7	ICRRF	
SED VOC	20406302306	062904-SED-02700-00.2	N	SW8260B	NONE	PROPIONITRILE	0.749 U	0.749	UG/KG	UJ		3.75	ICRRF	
SED VOC	20406302306	062904-SED-02700-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	74.9 U	74.9	UG/KG	UJ		74.9	ICRRF	
SED VOC	20406302306	062904-SED-02700-00.2	N	SW8260B	NONE	ACETONITRILE	3.39 U	3.39	UG/KG	UJ		74.9	ICRRF	
SED VOC	20406302306	062904-SED-02700-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.749 U	0.749	UG/KG	UJ		3.75	ICRRF	
SED VOC	20406302312	062904-SED-02732-00.2	N	SW8260B	NONE	ACROLEIN	2.28 U	2.28	UG/KG	UJ		24.4	ICRRF	
SED VOC	20406302312	062904-SED-02732-00.2	N	SW8260B	NONE	PROPIONITRILE	0.975 U	0.975	UG/KG	UJ		4.88	ICRRF	
SED VOC	20406302312	062904-SED-02732-00.2	N	SW8260B	NONE	TETRAHYDROFURAN	97.5 U	97.5	UG/KG	UJ		97.5	ICRRF	
SED VOC	20406302312	062904-SED-02732-00.2	N	SW8260B	NONE	ACETONITRILE	4.41 U	4.41	UG/KG	UJ		97.5	ICRRF	
SED VOC	20406302312	062904-SED-02732-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.975 U	0.975	UG/KG	UJ		4.88	ICRRF	
SED VOC	20406302305	062904-SED-02699-00.2	N	SW8260B	NONE	ACROLEIN	1.72 U	1.72	UG/KG	UJ		18.4	ICRRF	
SED VOC	20406302305	062904-SED-02699-00.2	N	SW8260B	NONE	PROPIONITRILE	0.737 U	0.737	UG/KG	UJ		3.69	ICRRF	
SED VOC	20406302308	062904-SED-02702-00.2	N	SW8260B	NONE	ACETONITRILE	3.28 U	3.28	UG/KG	UJ		72.5	ICRRF	
SED VOC	20406302308	062904-SED-02702-00.2	N	SW8260B	NONE	ISOBUTYL ALCOHOL	0.725 U	0.725	UG/KG	UJ		3.63	ICRRF	
SED VOC	20407020803	063004-SED-02708-00.2-D	FD	SW8260B	NONE	ACRYLONITRILE	0.691 U	0.691	UG/KG	UJ		24.3	ICRRF	
SED VOC	20407020803	063004-SED-02708-00.2-D	FD	SW8260B	NONE	ACROLEIN	2.27 U	2.27	UG/KG	UJ		24.3	ICRRF	
SED VOC	20407020803	063004-SED-02708-00.2-D	FD	SW8260B	NONE	ISOBUTANOL	0.97 U	0.97	UG/KG	UJ		4.85	ICRRF,CCRRF	
SED VOC	20407020813	063004-SED-02724-00.2	N	SW8260B	NONE	2-HEXANONE	0.744 U	0.744	UG/KG	UJ		4.5	ICRSD	
SED VOC	20407020812	063004-SED-02723-00.2	N	SW8260B	NONE	2-HEXANONE	0.696 U	0.696	UG/KG	UJ		4.21	ICRSD	
SED VOC	20407020814	063004-SED-02725-00.2	N	SW8260B	NONE	2-HEXANONE	0.694 U	0.694	UG/KG	UJ		4.2	ICRSD	
SED VOC	20407020814	063004-SED-02725-00.2	N	SW8260B	NONE	ACRYLONITRILE	0.598 U	0.598	UG/KG	UJ		21	ICRSD	
SED VOC	20407020811	063004-SED-02718-00.2	N	SW8260B	NONE	2-HEXANONE	0.868 U	0.868	UG/KG	UJ		5.25	ICRSD	
SED VOC	20407020816	063004-SED-02726-00.2-D	FD	SW8260B	NONE	VINYL ACETATE	0.902 U	0.902	UG/KG	UJ		4.61	ICRSD	
SED VOC	20407020811	063004-SED-02718-00.2	N	SW8260B	NONE	ACRYLONITRILE	0.748 U	0.748	UG/KG	UJ		26.3	ICRSD	
SED VOC	20407020816	063004-SED-02726-00.2-D	FD	SW8260B	NONE	ACRYLONITRILE	0.656 U	0.656	UG/KG	UJ		23	ICRSD	
SED VOC	20407020812	063004-SED-02723-00.2	N	SW8260B	NONE	ACRYLONITRILE	0.6 U	0.6	UG/KG	UJ		21.1	ICRSD	
SED VOC	20407020812	063004-SED-02723-00.2	N	SW8260B	NONE	VINYL ACETATE	0.824 U	0.824	UG/KG	UJ		4.21	ICRSD	
SED VOC	20407020813	063004-SED-02724-00.2	N	SW8260B	NONE	ACRYLONITRILE	0.641 U	0.641	UG/KG	UJ		22.5	ICRSD	
SED VOC	20407020813	063004-SED-02724-00.2	N	SW8260B	NONE	VINYL ACETATE	0.882 U	0.882	UG/KG	UJ		4.5	ICRSD	
SED VOC	20407020809	063004-SED-02716-00.2	N	SW8260B	NONE	ACRYLONITRILE	0.615 U	0.615	UG/KG	UJ		21.6	ICRSD	
SED VOC	20407020809	063004-SED-02716-00.2	N	SW8260B	NONE	2-HEXANONE	0.713 U	0.713	UG/KG	UJ		4.32	ICRSD	
SED VOC	20407020811	063004-SED-02718-00.2	N	SW8260B	NONE	VINYL ACETATE	1.03 U	1.03	UG/KG	UJ		5.25	ICRSD	
SED VOC	20407020803	063004-SED-02708-00.2-D	FD	SW8260B	NONE	BROMOFORM	0.164 U	0.164	UG/KG	UJ		4.85	ICRSD	
SED VOC	20407020803	063004-SED-02708-00.2-D	FD	SW8260B	NONE	PENTOCHLORETHANE	0.491 U	0.491	UG/KG	UJ		4.85	ICRSD	
SED VOC	20407020816	063004-SED-02726-00.2-D	FD	SW8260B	NONE	2-HEXANONE	0.761 U	0.761	UG/KG	UJ		4.61	ICRSD	
SED VOC	20407020807	063004-SED-02710-00.2	N	SW8260B	NONE	ACRYLONITRILE	0.604 U	0.604	UG/KG	UJ		21.2	ICRSD	
SED VOC	20407020807	063004-SED-02710-00.2	N	SW8260B	NONE	VINYL ACETATE	0.831 U	0.831	UG/KG	UJ		4.24	ICRSD	
SED VOC	20407020807	063004-SED-02710-00.2	N	SW8260B	NONE	2-HEXANONE	0.701 U	0.701	UG/KG	UJ		4.24	ICRSD	
SED VOC	20407020806	063004-SED-02709-00.2	N	SW8260B	NONE	VINYL ACETATE	0.906 U	0.906	UG/KG	UJ		4.63	ICRSD	
SED VOC	20407020806	063004-SED-02709-00.2	N	SW8260B	NONE	ACRYLONITRILE	0.659 U	0.659	UG/KG	UJ		23.1	ICRSD	
SED VOC	20407020803	063004-SED-02708-00.2-D	FD	SW8260B	NONE	1,3-DICHLOROBENZENE	0.229 U	0.229	UG/KG	UJ		4.85	ICRSD	
SED VOC	20407020806	063004-SED-02709-00.2	N	SW8260B	NONE	2-HEXANONE	0.765 U	0.765	UG/KG	UJ		4.63	ICRSD	
SED VOC	20407020814	063004-SED-02725-00.2	N	SW8260B	NONE	VINYL ACETATE	0.823 U	0.823	UG/KG	UJ		4.2	ICRSD	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SED	VOC	20407020809	063004-SED-02716-00.2	N	SW8260B	NONE	VINYL ACETATE	0.845 U	0.845	UG/KG	UJ		4.32 ICRSD	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	1,3-DICHLOROBENZENE	21 U	21	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	1,1,2,2-TETRACHLOROETHANE	16 U	16	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	1,2,3-TRICHLOROBENZENE	21.1 U	21.1	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	1,2-DICHLOROBENZENE	10.2 U	10.2	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	1,2,4-TRIMETHYLBENZENE	17.6 U	17.6	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	1,2-DIBROMO-3-CHLOROPROPANE	77.2 U	77.2	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	1,2,3-TRICHLOROPROPANE	21.8 U	21.8	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	TERT-BUTYLBENZENE	22.5 U	22.5	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	4-ISOPROPYLTOLUENE	14.3 U	14.3	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	N-PROPYLBENZENE	12.5 U	12.5	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	N-BUTYLBENZENE	15.9 U	15.9	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	1,4-DICHLOROBENZENE	37.5 U	37.5	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	1,3,5-TRIMETHYLBENZENE	14.5 U	14.5	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	BROMOBENZENE	20.9 U	20.9	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	TRANS-1,4-DICHLORO-2-BUTENE	64.3 U	64.3	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	1,2,4-TRICHLOROBENZENE	29.1 U	29.1	UG/KG	UJ		446 ISL	
SOI	VOC	20406042503DL	060204-SOI-02697-00.5	N	SW8260B	NONE	SEC-BUTYLBENZENE	10.4 U	10.4	UG/KG	UJ		446 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	N-PROPYLBENZENE	8.18 U	8.18	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	N-BUTYLBENZENE	10.4 U	10.4	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	1,4-DICHLOROBENZENE	24.6 U	24.6	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	1,3,5-TRIMETHYLBENZENE	9.52 U	9.52	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	BROMOBENZENE	13.7 U	13.7	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	TRANS-1,4-DICHLORO-2-BUTENE	42.1 U	42.1	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	1,2,4-TRICHLOROBENZENE	19.1 U	19.1	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	SEC-BUTYLBENZENE	6.84 U	6.84	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	1,3-DICHLOROBENZENE	13.8 U	13.8	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	1,1,2,2-TETRACHLOROETHANE	10.5 U	10.5	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	1,2,3-TRICHLOROBENZENE	13.8 U	13.8	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	1,2-DICHLOROBENZENE	6.66 U	6.66	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	1,2,4-TRIMETHYLBENZENE	11.6 U	11.6	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	1,2-DIBROMO-3-CHLOROPROPANE	50.6 U	50.6	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	1,2,3-TRICHLOROPROPANE	14.3 U	14.3	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	TERT-BUTYLBENZENE	14.7 U	14.7	UG/KG	UJ		292 ISL	
SOI	VOC	20406042504DL	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	4-ISOPROPYLTOLUENE	9.41 U	9.41	UG/KG	UJ		292 ISL	
SED	VOC	20406302309	062904-SED-02731-00.2	N	SW8260B	NONE	ACRYLONITRILE	0.673 U	0.673	UG/KG	UJ		23.6 MSL	
SED	VOC	20406302309	062904-SED-02731-00.2	N	SW8260B	NONE	ACETONE	0.354 U	0.354	UG/KG	UJ		23.6 MSL	
SED	VOC	20407020803	063004-SED-02708-00.2-D	FD	SW8260B	NONE	M,P-XYLENES	11.7 =	11.7	UG/KG	J		4.85 MSL	
SOI	VOC	20406032409	060104-SOI-02690-00.5	N	SW8260B	NONE	1,2,4-TRICHLOROBENZENE	0.333 U	0.333	UG/KG	UJ		5.09 MSL,MSDL,SSL	
SOI	VOC	20406032409	060104-SOI-02690-00.5	N	SW8260B	NONE	1,2,3-TRICHLOROBENZENE	0.241 U	0.241	UG/KG	UJ		5.09 MSL,MSDL,SSL	
SOI	VOC	20406032409	060104-SOI-02690-00.5	N	SW8260B	NONE	ACETONE	126 =	126	UG/KG	J		25.5 MSL,MSDP,SSL,CCVH,MSDL	
SOI	VOC	20406032401	060104-SOI-02687-02.0	N	SW8260B	NONE	ACETONE	54.4 =	54.4	UG/KG	J		33.7 SSL,CCVH	
SOI	VOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8260B	NONE	ACETONE	154 =	154	UG/KG	J		30.3 SSL,CCVH	
SOI	VOC	20406032407	060104-SOI-02687-04.5	N	SW8260B	NONE	ACETONE	77 =	77	UG/KG	J		25.3 SSL,CCVH	
SOI	VOC	20406032402	060104-SOI-02688-02.0	N	SW8260B	NONE	ACETONE	114 =	114	UG/KG	J		26.9 SSL,CCVH	
SOI	VOC	20406032404	060104-SOI-02688-04.0	N	SW8260B	NONE	ACETONE	88.1 =	88.1	UG/KG	J		21.5 SSL,CCVH	
SOI	VOC	20406032408	060104-SOI-02688-06.0	N	SW8260B	NONE	ACETONE	114 =	114	UG/KG	J		23.8 SSL,CCVH	
SOI	VOC	20406032406	060104-SOI-02688-07.0	N	SW8260B	NONE	ACETONE	44.4 =	44.4	UG/KG	J		22.4 SSL,CCVH	
SOI	VOC	20406032415	060104-SOI-02689-02.0	N	SW8260B	NONE	ACETONE	359 =	359	UG/KG	J		24.5 SSL,CCVH	
SOI	VOC	20406032403	060104-SOI-02689-00.5	N	SW8260B	NONE	ACETONE	142 =	142	UG/KG	J		26.5 SSL,CCVH	
SOI	VOC	20406032405	060104-SOI-02689-04.5	N	SW8260B	NONE	ACETONE	191 =	191	UG/KG	J		23.9 SSL,CCVH	
SOI	VOC	20406032413	060104-SOI-02690-02.0	N	SW8260B	NONE	ACETONE	100 =	100	UG/KG	J		24.3 SSL,CCVH	
SOI	VOC	20406032414	060104-SOI-02687-00.5	N	SW8260B	NONE	ACETONE	82.6 =	82.6	UG/KG	J		32.9 SSL,CCVH	
SOI	VOC	20406042501	060204-SOI-02695-00.5	N	SW8260B	NONE	BROMOMETHANE	1.49 U	1.49	UG/KG	UJ		4.94 SSL,ICRSD	
SOI	VOC	20406042503	060204-SOI-02697-00.5	N	SW8260B	NONE	BROMOMETHANE	2.04 U	2.04	UG/KG	UJ		6.77 SSL,ICRSD	
SOI	VOC	20406042507	060204-SOI-02695-01.5	N	SW8260B	NONE	BROMOMETHANE	1.37 U	1.37	UG/KG	UJ		4.54 SSL,ICRSD	
SOI	VOC	20406042502	060204-SOI-02696-00.5	N	SW8260B	NONE	BROMOMETHANE	1.86 U	1.86	UG/KG	UJ		6.18 SSL,ICRSD	
SOI	VOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	BROMOMETHANE	1.85 U	1.85	UG/KG	UJ		6.16 SSL,ICRSD	
SOI	VOC	20406042508	060204-SOI-02696-04.0	N	SW8260B	NONE	BROMOMETHANE	2.29 U	2.29	UG/KG	UJ		7.6 SSL,ICRSD	
SOI	VOC	20406042511	060204-SOI-02696-02.0	N	SW8260B	NONE	BROMOMETHANE	2.02 U	2.02	UG/KG	UJ		6.7 SSL,ICRSD	
SOI	VOC	20406032401	060104-SOI-02687-02.0	N	SW8260B	NONE	BROMOMETHANE	2.03 U	2.03	UG/KG	UJ		6.73 SSL,ICRSD	
SOI	VOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8260B	NONE	BROMOMETHANE	1.83 U	1.83	UG/KG	UJ		6.07 SSL,ICRSD	
SOI	VOC	20406032407	060104-SOI-02687-04.5	N	SW8260B	NONE	BROMOMETHANE	1.52 U	1.52	UG/KG	UJ		5.06 SSL,ICRSD	
SOI	VOC	20406032416	060104-SOI-02688-00.5	N	SW8260B	NONE	BROMOMETHANE	1.65 U	1.65	UG/KG	UJ		5.47 SSL,ICRSD	
SOI	VOC	20406032402	060104-SOI-02688-02.0	N	SW8260B	NONE	BROMOMETHANE	1.62 U	1.62	UG/KG	UJ		5.37 SSL,ICRSD	
SOI	VOC	20406032404	060104-SOI-02688-04.0	N	SW8260B	NONE	BROMOMETHANE	1.29 U	1.29	UG/KG	UJ		4.3 SSL,ICRSD	
SOI	VOC	20406032408	060104-SOI-02688-06.0	N	SW8260B	NONE	BROMOMETHANE	1.43 U	1.43	UG/KG	UJ		4.76 SSL,ICRSD	
SOI	VOC	20406032406	060104-SOI-02688-07.0	N	SW8260B	NONE	BROMOMETHANE	1.35 U	1.35	UG/KG	UJ		4.49 SSL,ICRSD	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SOI	VOC	20406032415	060104-SOI-02689-02.0	N	SW8260B	NONE	BROMOMETHANE	1.47 U	1.47	UG/KG	UJ		4.9 SSL,ICRSD	
SOI	VOC	20406032403	060104-SOI-02689-00.5	N	SW8260B	NONE	BROMOMETHANE	1.59 U	1.59	UG/KG	UJ		5.29 SSL,ICRSD	
SOI	VOC	20406032409	060104-SOI-02690-00.5	N	SW8260B	NONE	BROMOMETHANE	1.53 U	1.53	UG/KG	UJ		5.09 SSL,ICRSD	
SOI	VOC	20406032413	060104-SOI-02690-02.0	N	SW8260B	NONE	BROMOMETHANE	1.47 U	1.47	UG/KG	UJ		4.87 SSL,ICRSD	
SOI	VOC	20406042510	060204-SOI-02697-02.5	N	SW8260B	NONE	BROMOMETHANE	1.51 U	1.51	UG/KG	UJ		5.01 SSL,ICRSD	
SOI	VOC	20406032414	060104-SOI-02687-00.5	N	SW8260B	NONE	BROMOMETHANE	1.98 U	1.98	UG/KG	UJ		6.59 SSL,ICRSD	
SOI	VOC	20406042505	060204-SOI-02698-00.5	N	SW8260B	NONE	BROMOMETHANE	1.91 U	1.91	UG/KG	UJ		6.35 SSL,ICRSD	
SOI	VOC	20406042503	060204-SOI-02697-00.5	N	SW8260B	NONE	XYLENE (TOTAL)	0.774 U	0.774	UG/KG	UJ		13.5 SSL,ISL	
SOI	VOC	20406042501	060204-SOI-02695-00.5	N	SW8260B	NONE	ETHYLBENZENE	0.205 U	0.205	UG/KG	UJ		4.94 SSL,LCSLD	
SOI	VOC	20406042508	060204-SOI-02696-04.0	N	SW8260B	NONE	ETHYLBENZENE	0.315 U	0.315	UG/KG	UJ		7.6 SSL,LCSLD	
SOI	VOC	20406042511	060204-SOI-02696-02.0	N	SW8260B	NONE	ETHYLBENZENE	0.278 U	0.278	UG/KG	UJ		6.7 SSL,LCSLD	
SOI	VOC	20406042503	060204-SOI-02697-00.5	N	SW8260B	NONE	ETHYLBENZENE	0.28 U	0.28	UG/KG	UJ		6.77 SSL,LCSLD	
SOI	VOC	20406042510	060204-SOI-02697-02.5	N	SW8260B	NONE	ETHYLBENZENE	0.207 U	0.207	UG/KG	UJ		5.01 SSL,LCSLD	
SOI	VOC	20406042504	060204-SOI-02697-00.5-D	FD	SW8260B	NONE	ETHYLBENZENE	0.255 U	0.255	UG/KG	UJ		6.16 SSL,LCSLD	
SOI	VOC	20406042505	060204-SOI-02698-00.5	N	SW8260B	NONE	ETHYLBENZENE	0.263 U	0.263	UG/KG	UJ		6.35 SSL,LCSLD	
SOI	VOC	20406050911	060304-SOI-02722-00.5	N	SW8260B	NONE	CARBON DISULFIDE	25.8 =	25.8	UG/KG	J		5.1 SSL,CCVH	
SOI	VOC	20406050912	060404-SOI-02711-00.5	N	SW8260B	NONE	CARBON DISULFIDE	20 =	20	UG/KG	J		6.14 SSL,CCVH	
SOI	VOC	20406050913	060404-SOI-02712-00.5	N	SW8260B	NONE	CARBON DISULFIDE	15.1 =	15.1	UG/KG	J		5.09 SSL,CCVH	
SOI	VOC	20406050915	060404-SOI-02714-00.5	N	SW8260B	NONE	CARBON DISULFIDE	24.8 =	24.8	UG/KG	J		6.06 SSL,CCVH	
SOI	VOC	20406050914	060404-SOI-02713-00.5	N	SW8260B	NONE	CARBON DISULFIDE	24.9 =	24.9	UG/KG	J		8.43 SSL,CCVH	
SOI	VOC	20406050916	060404-SOI-02727-00.5	N	SW8260B	NONE	CARBON DISULFIDE	17.6 =	17.6	UG/KG	J		6.2 SSL,CCVH	
SOI	VOC	20406050917	060404-SOI-02728-00.5	N	SW8260B	NONE	CARBON DISULFIDE	23.6 =	23.6	UG/KG	J		6.23 SSL,CCVH	
SOI	VOC	20406050918	060404-SOI-02729-00.5	N	SW8260B	NONE	CARBON DISULFIDE	23.1 =	23.1	UG/KG	J		8.53 SSL,CCVH	
SOI	VOC	20406050919	060404-SOI-02730-00.5	N	SW8260B	NONE	CARBON DISULFIDE	35.9 =	35.9	UG/KG	J		10.8 SSL,CCVH	
SOI	VOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8260B	NONE	CARBON DISULFIDE	36 =	36	UG/KG	J		8.08 SSL,CCVH	
SOI	VOC	20406050901	060304-SOI-02703-00.5	N	SW8260B	NONE	TETRAHYDROFURAN	116 U	116	UG/KG	UJ		116 SSL,CCVL	
SOI	VOC	20406050904	060304-SOI-02704-00.5	N	SW8260B	NONE	TETRAHYDROFURAN	204 U	204	UG/KG	UJ		204 SSL,CCVL	
SOI	VOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8260B	NONE	TETRAHYDROFURAN	150 U	150	UG/KG	UJ		150 SSL,CCVL	
SOI	VOC	20406050902	060304-SOI-02705-00.5	N	SW8260B	NONE	TETRAHYDROFURAN	142 U	142	UG/KG	UJ		142 SSL,CCVL	
SOI	VOC	20406050903	060304-SOI-02706-00.5	N	SW8260B	NONE	TETRAHYDROFURAN	107 U	107	UG/KG	UJ		107 SSL,CCVL	
SOI	VOC	20406050906	060304-SOI-02719-00.5	N	SW8260B	NONE	TETRAHYDROFURAN	128 U	128	UG/KG	UJ		128 SSL,CCVL	
SOI	VOC	20406050907	060304-SOI-02720-00.5	N	SW8260B	NONE	ALLYL CHLORIDE	1.18 U	1.18	UG/KG	UJ		5.89 SSL,CCVL	
SOI	VOC	20406050907	060304-SOI-02720-00.5	N	SW8260B	NONE	TETRAHYDROFURAN	118 U	118	UG/KG	UJ		118 SSL,CCVL	
SOI	VOC	20406050910	060304-SOI-02721-00.5	N	SW8260B	NONE	METHYLENE CHLORIDE	0.525 U	0.525	UG/KG	UJ		5.48 SSL,CCVL	
SOI	VOC	20406050911	060304-SOI-02722-00.5	N	SW8260B	NONE	ACETONE	144 =	144	UG/KG	J		25.5 SSL,CCVL	
SOI	VOC	20406050912	060404-SOI-02711-00.5	N	SW8260B	NONE	METHYLENE CHLORIDE	0.489 U	0.489	UG/KG	UJ		5.1 SSL,CCVL	
SOI	VOC	20406050912	060404-SOI-02711-00.5	N	SW8260B	NONE	ACETONE	109 =	109	UG/KG	J		30.7 SSL,CCVL	
SOI	VOC	20406050912	060404-SOI-02711-00.5	N	SW8260B	NONE	METHYLENE CHLORIDE	0.589 U	0.589	UG/KG	UJ		6.14 SSL,CCVL	
SOI	VOC	20406050913	060404-SOI-02712-00.5	N	SW8260B	NONE	ACETONE	92.1 =	92.1	UG/KG	J		25.4 SSL,CCVL	
SOI	VOC	20406050913	060404-SOI-02712-00.5	N	SW8260B	NONE	METHYLENE CHLORIDE	0.487 U	0.487	UG/KG	UJ		5.09 SSL,CCVL	
SOI	VOC	20406050915	060404-SOI-02714-00.5	N	SW8260B	NONE	ACETONE	55.7 =	55.7	UG/KG	J		30.3 SSL,CCVL	
SOI	VOC	20406050915	060404-SOI-02714-00.5	N	SW8260B	NONE	METHYLENE CHLORIDE	0.581 U	0.581	UG/KG	UJ		6.06 SSL,CCVL	
SOI	VOC	20406050914	060404-SOI-02713-00.5	N	SW8260B	NONE	ACETONE	86.5 =	86.5	UG/KG	J		42.2 SSL,CCVL	
SOI	VOC	20406050914	060404-SOI-02713-00.5	N	SW8260B	NONE	METHYLENE CHLORIDE	0.808 U	0.808	UG/KG	UJ		8.43 SSL,CCVL	
SOI	VOC	20406050916	060404-SOI-02727-00.5	N	SW8260B	NONE	ACETONE	43.1 =	43.1	UG/KG	J		31 SSL,CCVL	
SOI	VOC	20406050916	060404-SOI-02727-00.5	N	SW8260B	NONE	METHYLENE CHLORIDE	0.594 U	0.594	UG/KG	UJ		6.2 SSL,CCVL	
SOI	VOC	20406050917	060404-SOI-02728-00.5	N	SW8260B	NONE	ACETONE	55.3 =	55.3	UG/KG	J		31.1 SSL,CCVL	
SOI	VOC	20406050917	060404-SOI-02728-00.5	N	SW8260B	NONE	METHYLENE CHLORIDE	0.596 U	0.596	UG/KG	UJ		6.23 SSL,CCVL	
SOI	VOC	20406050918	060404-SOI-02729-00.5	N	SW8260B	NONE	ACETONE	218 =	218	UG/KG	J		42.7 SSL,CCVL	
SOI	VOC	20406050919	060404-SOI-02730-00.5	N	SW8260B	NONE	ACETONE	174 =	174	UG/KG	J		54.2 SSL,CCVL	
SOI	VOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8260B	NONE	ACETONE	135 =	135	UG/KG	J		40.4 SSL,CCVL	
SOI	VOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8260B	NONE	METHYLENE CHLORIDE	0.775 U	0.775	UG/KG	UJ		8.08 SSL,CCVL	
SED	VOC	20407020815	063004-SED-02726-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.468 U	0.468	UG/KG	UJ		4.62 SSL,CCVL	
SED	VOC	20407020808	063004-SED-02715-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.597 U	0.597	UG/KG	UJ		5.9 SSL,CCVL	
SED	VOC	20407020801	063004-SED-02707-00.2	N	SW8260B	NONE	PENTOCHLORETHANE	0.443 U	0.443	UG/KG	UJ		4.38 SSL,CCVL	
SOI	VOC	20406050907	060304-SOI-02720-00.5	N	SW8260B	NONE	PROPIONITRILE	1.18 U	1.18	UG/KG	UJ		5.89 SSL,CCVL,CCRRF	
SOI	VOC	20406050901	060304-SOI-02703-00.5	N	SW8260B	NONE	ACROLEIN	2.7 U	2.7	UG/KG	UJ		28.9 SSL,ICRRF	
SOI	VOC	20406050904	060304-SOI-02704-00.5	N	SW8260B	NONE	ACROLEIN	4.78 U	4.78	UG/KG	UJ		51.1 SSL,ICRRF	
SOI	VOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8260B	NONE	ACROLEIN	3.52 U	3.52	UG/KG	UJ		37.6 SSL,ICRRF	
SOI	VOC	20406050902	060304-SOI-02705-00.5	N	SW8260B	NONE	ACROLEIN	3.33 U	3.33	UG/KG	UJ		35.5 SSL,ICRRF	
SOI	VOC	20406050903	060304-SOI-02706-00.5	N	SW8260B	NONE	ACROLEIN	2.51 U	2.51	UG/KG	UJ		26.8 SSL,ICRRF	
SOI	VOC	20406050906	060304-SOI-02719-00.5	N	SW8260B	NONE	ACROLEIN	2.99 U	2.99	UG/KG	UJ		32 SSL,ICRRF	
SOI	VOC	20406032412	060104-SOI-02687-00.5-D	FD	SW8260B	NONE	ACROLEIN	2.84 U	2.84	UG/KG	UJ		30.3 SSL,ICRRF,CCRRF	
SOI	VOC	20406032407	060104-SOI-02687-04.5	N	SW8260B	NONE	ACROLEIN	2.37 U	2.37	UG/KG	UJ		25.3 SSL,ICRRF,CCRRF	
SOI	VOC	20406032402	060104-SOI-02688-02.0	N	SW8260B	NONE	ACROLEIN	2.51 U	2.51	UG/KG	UJ		26.9 SSL,ICRRF,CCRRF	
SOI	VOC	20406032416	060104-SOI-02688-00.5	N	SW8260B	NONE	ACROLEIN	2.56 U	2.56	UG/KG	UJ		27.3 SSL,ICRRF,CCRRF	
SOI	VOC	20406032404	060104-SOI-02688-04.0	N	SW8260B	NONE	ACROLEIN	2.01 U	2.01	UG/KG	UJ		21.5 SSL,ICRRF,CCRRF	
SOI	VOC	20406032408	060104-SOI-02688-06.0	N	SW8260B	NONE	ACROLEIN	2.23 U	2.23	UG/KG	UJ		23.8 SSL,ICRRF,CCRRF	

Table B.1

Validation Summary - Changed Qualifiers

SAMPLE TYPE	PARAMETER GROUP	LAB SAMPLE ID	FIELD SAMPLE ID	SAMPLE PURPOSE	ANALYTICAL METHOD	PREP METHOD	PARAMETER NAME	LAB RESULT	LAB QUAL	REPORT RESULT	REPORT UNITS	VAL QUAL	LAB DETECTION LIMIT	VALIDATION REASON CODES
SOI	VOC	20406032406	060104-SOI-02688-07.0	N	SW8260B	NONE	ACROLEIN	2.1 U	2.1	UG/KG	UJ		22.4	SSL,ICRRF,CCRRF
SOI	VOC	20406032415	060104-SOI-02689-02.0	N	SW8260B	NONE	ACROLEIN	2.29 U	2.29	UG/KG	UJ		24.5	SSL,ICRRF,CCRRF
SOI	VOC	20406032403	060104-SOI-02689-00.5	N	SW8260B	NONE	ACROLEIN	2.48 U	2.48	UG/KG	UJ		26.5	SSL,ICRRF,CCRRF
SOI	VOC	20406032405	060104-SOI-02689-04.5	N	SW8260B	NONE	ACROLEIN	2.24 U	2.24	UG/KG	UJ		23.9	SSL,ICRRF,CCRRF
SOI	VOC	20406032409	060104-SOI-02690-00.5	N	SW8260B	NONE	ACROLEIN	2.38 U	2.38	UG/KG	UJ		25.5	SSL,ICRRF,CCRRF
SOI	VOC	20406032401	060104-SOI-02687-02.0	N	SW8260B	NONE	ACROLEIN	3.15 U	3.15	UG/KG	UJ		33.7	SSL,ICRRF,CCRRF
SOI	VOC	20406050901	060304-SOI-02703-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.16 U	1.16	UG/KG	UJ		5.78	SSL,ICRRF,CCRRF
SOI	VOC	20406050904	060304-SOI-02704-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	2.04 U	2.04	UG/KG	UJ		10.2	SSL,ICRRF,CCRRF
SOI	VOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8260B	NONE	ISOBUTYL ALCOHOL	1.5 U	1.5	UG/KG	UJ		7.52	SSL,ICRRF,CCRRF
SOI	VOC	20406050903	060304-SOI-02706-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.07 U	1.07	UG/KG	UJ		5.36	SSL,ICRRF,CCRRF
SOI	VOC	20406050902	060304-SOI-02705-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.42 U	1.42	UG/KG	UJ		7.11	SSL,ICRRF,CCRRF
SOI	VOC	20406050906	060304-SOI-02719-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.28 U	1.28	UG/KG	UJ		6.4	SSL,ICRRF,CCRRF
SOI	VOC	20406050910	060304-SOI-02721-00.5	N	SW8260B	NONE	ACROLEIN	2.57 U	2.57	UG/KG	UJ		27.4	SSL,ICRRF,CCRRF
SOI	VOC	20406050910	060304-SOI-02721-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.1 U	1.1	UG/KG	UJ		5.48	SSL,ICRRF,CCRRF
SOI	VOC	20406050911	060304-SOI-02722-00.5	N	SW8260B	NONE	ACROLEIN	2.39 U	2.39	UG/KG	UJ		25.5	SSL,ICRRF,CCRRF
SOI	VOC	20406050911	060304-SOI-02722-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.02 U	1.02	UG/KG	UJ		5.1	SSL,ICRRF,CCRRF
SOI	VOC	20406050912	060404-SOI-02711-00.5	N	SW8260B	NONE	ACROLEIN	2.88 U	2.88	UG/KG	UJ		30.7	SSL,ICRRF,CCRRF
SOI	VOC	20406050913	060404-SOI-02712-00.5	N	SW8260B	NONE	ACROLEIN	2.38 U	2.38	UG/KG	UJ		25.4	SSL,ICRRF,CCRRF
SOI	VOC	20406050912	060404-SOI-02711-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.23 U	1.23	UG/KG	UJ		6.14	SSL,ICRRF,CCRRF
SOI	VOC	20406050913	060404-SOI-02712-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.02 U	1.02	UG/KG	UJ		5.09	SSL,ICRRF,CCRRF
SOI	VOC	20406050915	060404-SOI-02714-00.5	N	SW8260B	NONE	ACROLEIN	2.84 U	2.84	UG/KG	UJ		30.3	SSL,ICRRF,CCRRF
SOI	VOC	20406050914	060404-SOI-02713-00.5	N	SW8260B	NONE	ACROLEIN	3.95 U	3.95	UG/KG	UJ		42.2	SSL,ICRRF,CCRRF
SOI	VOC	20406050914	060404-SOI-02713-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.69 U	1.69	UG/KG	UJ		8.43	SSL,ICRRF,CCRRF
SOI	VOC	20406050915	060404-SOI-02714-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.21 U	1.21	UG/KG	UJ		6.06	SSL,ICRRF,CCRRF
SOI	VOC	20406050916	060404-SOI-02727-00.5	N	SW8260B	NONE	ACROLEIN	2.9 U	2.9	UG/KG	UJ		31	SSL,ICRRF,CCRRF
SOI	VOC	20406050917	060404-SOI-02728-00.5	N	SW8260B	NONE	ACROLEIN	2.91 U	2.91	UG/KG	UJ		31.1	SSL,ICRRF,CCRRF
SOI	VOC	20406050916	060404-SOI-02727-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.24 U	1.24	UG/KG	UJ		6.2	SSL,ICRRF,CCRRF
SOI	VOC	20406050917	060404-SOI-02728-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.25 U	1.25	UG/KG	UJ		6.23	SSL,ICRRF,CCRRF
SOI	VOC	20406050918	060404-SOI-02729-00.5	N	SW8260B	NONE	ACROLEIN	3.99 U	3.99	UG/KG	UJ		42.7	SSL,ICRRF,CCRRF
SOI	VOC	20406050918	060404-SOI-02729-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.71 U	1.71	UG/KG	UJ		8.53	SSL,ICRRF,CCRRF
SOI	VOC	20406050919	060404-SOI-02730-00.5	N	SW8260B	NONE	ACROLEIN	5.07 U	5.07	UG/KG	UJ		54.2	SSL,ICRRF,CCRRF
SOI	VOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8260B	NONE	ACROLEIN	3.78 U	3.78	UG/KG	UJ		40.4	SSL,ICRRF,CCRRF
SOI	VOC	20406050919	060404-SOI-02730-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	2.17 U	2.17	UG/KG	UJ		10.8	SSL,ICRRF,CCRRF
SOI	VOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8260B	NONE	ISOBUTYL ALCOHOL	1.62 U	1.62	UG/KG	UJ		8.08	SSL,ICRRF,CCRRF
SOI	VOC	20406032414	060104-SOI-02687-00.5	N	SW8260B	NONE	ACROLEIN	3.08 U	3.08	UG/KG	UJ		32.9	SSL,ICRRF,CCRRF
SOI	VOC	20406050907	060304-SOI-02720-00.5	N	SW8260B	NONE	ISOBUTYL ALCOHOL	1.18 U	1.18	UG/KG	UJ		5.89	SSL,ICRRF,CCVL,CCRF
SOI	VOC	20406050901	060304-SOI-02703-00.5	N	SW8260B	NONE	BROMOMETHANE	1.74 U	1.74	UG/KG	UJ		5.78	SSL,ICRSD
SOI	VOC	20406050905	060304-SOI-02704-00.5-D	FD	SW8260B	NONE	BROMOMETHANE	2.26 U	2.26	UG/KG	UJ		7.52	SSL,ICRSD
SOI	VOC	20406050904	060304-SOI-02704-00.5	N	SW8260B	NONE	BROMOMETHANE	3.07 U	3.07	UG/KG	UJ		10.2	SSL,ICRSD
SOI	VOC	20406050903	060304-SOI-02706-00.5	N	SW8260B	NONE	BROMOMETHANE	1.61 U	1.61	UG/KG	UJ		5.36	SSL,ICRSD
SOI	VOC	20406050902	060304-SOI-02705-00.5	N	SW8260B	NONE	BROMOMETHANE	2.14 U	2.14	UG/KG	UJ		7.11	SSL,ICRSD
SOI	VOC	20406050906	060304-SOI-02719-00.5	N	SW8260B	NONE	BROMOMETHANE	1.93 U	1.93	UG/KG	UJ		6.4	SSL,ICRSD
SOI	VOC	20406050910	060304-SOI-02721-00.5	N	SW8260B	NONE	BROMOMETHANE	1.65 U	1.65	UG/KG	UJ		5.48	SSL,ICRSD
SOI	VOC	20406050911	060304-SOI-02722-00.5	N	SW8260B	NONE	BROMOMETHANE	1.54 U	1.54	UG/KG	UJ		5.1	SSL,ICRSD
SOI	VOC	20406050912	060404-SOI-02711-00.5	N	SW8260B	NONE	BROMOMETHANE	1.85 U	1.85	UG/KG	UJ		6.14	SSL,ICRSD
SOI	VOC	20406050913	060404-SOI-02712-00.5	N	SW8260B	NONE	BROMOMETHANE	1.53 U	1.53	UG/KG	UJ		5.09	SSL,ICRSD
SOI	VOC	20406050915	060404-SOI-02714-00.5	N	SW8260B	NONE	BROMOMETHANE	1.82 U	1.82	UG/KG	UJ		6.06	SSL,ICRSD
SOI	VOC	20406050914	060404-SOI-02713-00.5	N	SW8260B	NONE	BROMOMETHANE	2.54 U	2.54	UG/KG	UJ		8.43	SSL,ICRSD
SOI	VOC	20406050916	060404-SOI-02727-00.5	N	SW8260B	NONE	BROMOMETHANE	1.87 U	1.87	UG/KG	UJ		6.2	SSL,ICRSD
SOI	VOC	20406050917	060404-SOI-02728-00.5	N	SW8260B	NONE	BROMOMETHANE	1.87 U	1.87	UG/KG	UJ		6.23	SSL,ICRSD
SOI	VOC	20406050918	060404-SOI-02729-00.5	N	SW8260B	NONE	BROMOMETHANE	2.57 U	2.57	UG/KG	UJ		8.53	SSL,ICRSD
SOI	VOC	20406050919	060404-SOI-02730-00.5	N	SW8260B	NONE	BROMOMETHANE	3.26 U	3.26	UG/KG	UJ		10.8	SSL,ICRSD
SOI	VOC	20406050920	060404-SOI-02730-00.5-D	FD	SW8260B	NONE	BROMOMETHANE	2.43 U	2.43	UG/KG	UJ		8.08	SSL,ICRSD
SED	VOC	20407020815	063004-SED-02726-00.2	N	SW8260B	NONE	2-HEXANONE	0.764 U	0.764	UG/KG	UJ		4.62	SSL,ICRSD
SED	VOC	20407020815	063004-SED-02726-00.2	N	SW8260B	NONE	ACRYLONITRILE	0.658 U	0.658	UG/KG	UJ		23.1	SSL,ICRSD
SED	VOC	20407020808	063004-SED-02715-00.2	N	SW8260B	NONE	VINYL ACETATE	0.905 U	0.905	UG/KG	UJ		4.62	SSL,ICRSD
SED	VOC	20407020801	063004-SED-02707-00.2	N	SW8260B	NONE	VINYL ACETATE	1.15 U	1.15	UG/KG	UJ		5.9	SSL,ICRSD
SED	VOC	20407020801	063004-SED-02715-00.2	N	SW8260B	NONE	VINYL ACETATE	0.857 U	0.857	UG/KG	UJ		4.38	SSL,ICRSD
SED	VOC	20407020801	063004-SED-02707-00.2	N	SW8260B	NONE	2-HEXANONE	0.974 U	0.974	UG/KG	UJ		5.9	SSL,ICRSD
SED	VOC	20407020801	063004-SED-02707-00.2	N	SW8260B	NONE	ACETONITRILE	3.96 U	3.96	UG/KG	UJ		87.5	SSL,ICRSD
SED	VOC	20407020801	063004-SED-02707-00.2	N	SW8260B	NONE	2-HEXANONE	0.723 U	0.723	UG/KG	UJ		4.38	SSL,ICRSD
SED	VOC	20407020808	063004-SED-02715-00.2	N	SW8260B	NONE	ACRYLONITRILE	0.84 U	0.84	UG/KG	UJ		29.5	SSL,ICRSD
SOI	VOC	20406050907	060304-SOI-02720-00.5	N	SW8260B	NONE	BROMOMETHANE	1.77 U	1.77	UG/KG	UJ		5.89	SSL,ICRSD,CCVL
SOI	VOC	20406050906	060304-SOI-02719-00.5	N	SW8260B	NONE	ETHYLBENZENE	0.265 U	0.265	UG/KG	UJ		6.4	SSL,LCSL,LCSDL
SOI	VOC	20406032409	060104-SOI-02690-00.5	N	SW8260B	NONE	ISOPROPYLBENZENE (CUMENE)	0.156 U	0.156	UG/KG	UJ		5.09	SSL,MSDL

Table B.2

Validation Summary - Detections in Blank Samples

Matrix	Parameter Group	SDG	Lab Sample ID	Field ID	QAQC Type	LR Type	Analysis Method	Extraction Method	Analyte	Lab Result	Lab Qualifier	RL Adjusted	Units
QCW	GEN	204060425	20406042516	060204-QCW-02738-R	EB		SW9060	NONE	Total Organic Carbon	1.1	=	1	mg/L
QCW	MET	204060425	171930	171930	LB		SW6010B	SW3010A	Antimony	2.61	B	20	ug/L
QCW	MET	204060509	171930	171930	LB		SW6010B	SW3010A	Antimony	2.61	B	20	ug/L
SO	MET	204063023	177477	177477	LB		SW6010B	SW3050B	Antimony	176	B	2000	ug/Kg
QCW	MET	204060425	20406042516	060204-QCW-02738-R	EB		SW6010B	SW3010A	Barium	0.53	B	10	ug/L
QCW	MET	204063023	20406302317	062904-QCW-02734-R	EB		SW6010B	SW3010A	Barium	1.29	B	10	ug/L
SO	MET	204060324	171117	171117	LB		SW6010B	SW3050B	Beryllium	9.05	B	200	ug/Kg
SO	MET	204060425	171435	171435	LB		SW6010B	SW3050B	Beryllium	12	B	200	ug/Kg
SO	MET	204060509	171733	171733	LB		SW6010B	SW3050B	Beryllium	8.04	B	200	ug/Kg
SO	MET	204063023	177919	177919	LB		SW6010B	SW3050B	Beryllium	3.31	B	200	ug/Kg
SO	MET	204070208	178095	178095	LB	RE	SW6010B	SW3050B	Beryllium	2.61	B	200	ug/Kg
SO	MET	204060324	171117	171117	LB		SW6010B	SW3050B	Cadmium	37	B	200	ug/Kg
SO	MET	204060425	171435	171435	LB		SW6010B	SW3050B	Cadmium	12.5	B	200	ug/Kg
SO	MET	204060509	171733	171733	LB		SW6010B	SW3050B	Cadmium	14.9	B	200	ug/Kg
QCW	MET	204060425	171930	171930	LB		SW6010B	SW3010A	Cadmium	1.73	B	5	ug/L
QCW	MET	204060509	171930	171930	LB		SW6010B	SW3010A	Cadmium	1.73	B	5	ug/L
SO	MET	204063023	177477	177477	LB		SW6010B	SW3050B	Cadmium	49	B	200	ug/Kg
SO	MET	204063023	177919	177919	LB		SW6010B	SW3050B	Cadmium	15.7	B	200	ug/Kg
SO	MET	204070208	178095	178095	LB	RE	SW6010B	SW3050B	Cadmium	34.9	B	200	ug/Kg
QCW	MET	204070208	178907	178907	LB		SW6010B	SW3010A	Cadmium	0.41	B	5	ug/L
QCW	MET	204063023	178907	178907	LB		SW6010B	SW3010A	Cadmium	0.41	B	5	ug/L
QCW	MET	204060425	20406042516	060204-QCW-02738-R	EB		SW6010B	SW3010A	Cobalt	0.66	B	10	ug/L
QCW	MET	204060509	171930	171930	LB		SW6010B	SW3010A	Lead	1.22	B	10	ug/L
QCW	MET	204060425	171930	171930	LB		SW6010B	SW3010A	Lead	1.22	B	10	ug/L
QCW	MET	204070208	178907	178907	LB		SW6010B	SW3010A	Lead	2.05	B	10	ug/L
QCW	MET	204063023	178907	178907	LB		SW6010B	SW3010A	Lead	2.05	B	10	ug/L
QCW	MET	204063023	20406302317	062904-QCW-02734-R	EB		SW6010B	SW3010A	Lead	1.98	B	10	ug/L
SO	MET	204070208	178097	178097	LB		SW7471	METHOD	Mercury	3.01	B	10	ug/Kg
SO	MET	204060324	171117	171117	LB		SW6010B	SW3050B	Nickel	64.3	B	1000	ug/Kg
SO	MET	204060425	171435	171435	LB		SW6010B	SW3050B	Nickel	60.1	B	1000	ug/Kg
SO	MET	204060509	171733	171733	LB		SW6010B	SW3050B	Nickel	33.5	B	1000	ug/Kg
SO	MET	204070208	178095	178095	LB	RE	SW6010B	SW3050B	Nickel	22.5	B	1000	ug/Kg
QCW	MET	204060425	20406042516	060204-QCW-02738-R	EB		SW6010B	SW3010A	Nickel	0.51	B	25	ug/L
QCW	MET	204060509	20406050922	060404-QCW-02747-R	EB		SW6010B	SW3010A	Nickel	0.56	B	25	ug/L
SO	MET	204060324	171117	171117	LB		SW6010B	SW3050B	Thallium	229	B	800	ug/Kg
SO	MET	204060425	171435	171435	LB		SW6010B	SW3050B	Thallium	246	B	800	ug/Kg
SO	MET	204060509	171733	171733	LB		SW6010B	SW3050B	Thallium	116	B	800	ug/Kg
SO	MET	204063023	177919	177919	LB		SW6010B	SW3050B	Thallium	199	B	800	ug/Kg
QCW	MET	204070208	178907	178907	LB		SW6010B	SW3010A	Thallium	6.79	B	20	ug/L
QCW	MET	204063023	178907	178907	LB		SW6010B	SW3010A	Thallium	6.79	B	20	ug/L
QCW	MET	204060509	20406050922	060404-QCW-02747-R	EB		SW6010B	SW3010A	Thallium	3.29	B	20	ug/L
QCW	MET	204063023	20406302317	062904-QCW-02734-R	EB		SW6010B	SW3010A	Thallium	5.3	B	20	ug/L
SO	MET	204060324	171117	171117	LB		SW6010B	SW3050B	Tin	977	B	4000	ug/Kg
SO	MET	204060425	171435	171435	LB		SW6010B	SW3050B	Tin	784	B	4000	ug/Kg

Table B.2

Validation Summary - Detections in Blank Samples

Matrix	Parameter Group	SDG	Lab Sample ID	Field ID	QAQC Type	LR Type	Analysis Method	Extraction Method	Analyte	Lab Result	Lab Qualifier	RL Adjusted	Units
SO	MET	204060509	171733	171733	LB		SW6010B	SW3050B	Tin	1240	B	4000	ug/Kg
SO	MET	204063023	177477	177477	LB		SW6010B	SW3050B	Tin	1000	B	4000	ug/Kg
SO	MET	204070208	178095	178095	LB	RE	SW6010B	SW3050B	Tin	871	B	4000	ug/Kg
SO	MET	204070208	178095	178095	LB		SW6010B	SW3050B	Zinc	485	B	800	ug/Kg
QCW	MET	204060425	20406042516	060204-QCW-02738-R	EB		SW6010B	SW3010A	Zinc	24	=	20	ug/L
QCW	MET	204063023	20406302317	062904-QCW-02734-R	EB		SW6010B	SW3010A	Zinc	16.6	B	20	ug/L
QCW	SVOC	204060425	20406042516	060204-QCW-02738-R	EB		SW8270C	SW3510C	Hexabromobenzene	18.4	=	5	ug/L
QCW	SVOC	204060509	20406050922	060404-QCW-02747-R	EB		SW8270C	SW3510C	Hexabromobenzene	19.1	=	5	ug/L
SO	VOC	204070208	179417	179417	LB		SW8260B	NONE	Acetone	1.83	J	25	ug/Kg
QCW	VOC	204060425	20406042516	060204-QCW-02738-R	EB		SW8260B	NONE	Chloroform	0.229	J	1	ug/L
QCW	VOC	204060509	20406050922	060404-QCW-02747-R	EB		SW8260B	NONE	Chloroform	0.172	J	1	ug/L
QCW	VOC	204060509	20406050923	060304-QCW-02746-T	TB		SW8260B	NONE	m,p-Xylene	0.098	J	2	ug/L
QCW	VOC	204060509	173634	173634	LB		SW8260B	NONE	Methylene chloride	0.128	J	5	ug/L
QCW	VOC	204060425	173634	173634	LB		SW8260B	NONE	Methylene chloride	0.128	J	5	ug/L
SO	VOC	204063023	178506	178506	LB		SW8260B	NONE	Methylene chloride	1.19	J	5	ug/Kg
SO	VOC	204070208	179417	179417	LB		SW8260B	NONE	Methylene chloride	1.58	J	5	ug/Kg
SO	VOC	204070208	179420	179420	LB		SW8260B	NONE	Methylene chloride	1.91	J	5	ug/Kg
QCW	VOC	204060425	20406042516	060204-QCW-02738-R	EB		SW8260B	NONE	Methylene chloride	0.701	J	5	ug/L
QCW	VOC	204060509	20406050922	060404-QCW-02747-R	EB		SW8260B	NONE	Methylene chloride	0.157	J	5	ug/L
QCW	VOC	204060509	20406050923	060304-QCW-02746-T	TB		SW8260B	NONE	Methylene chloride	0.93	J	5	ug/L
QCW	VOC	204060509	20406050924	060304-QCW-02745-T	TB		SW8260B	NONE	Methylene chloride	0.52	J	5	ug/L
QCW	VOC	204060509	20406050925	060404-QCW-02748-T	TB		SW8260B	NONE	Methylene chloride	0.657	J	5	ug/L
QCW	VOC	204060509	20406050926	060404-QCW-02749-T	TB		SW8260B	NONE	Methylene chloride	0.615	J	5	ug/L
QCW	VOC	204060509	20406050923	060304-QCW-02746-T	TB		SW8260B	NONE	o-Xylene	0.026	J	1	ug/L
QCW	VOC	204060509	20406050923	060304-QCW-02746-T	TB		SW8260B	NONE	Styrene	0.046	J	1	ug/L
QCW	VOC	204060509	20406050922	060404-QCW-02747-R	EB		SW8260B	NONE	Toluene	0.24	J	1	ug/L
QCW	VOC	204060509	20406050923	060304-QCW-02746-T	TB		SW8260B	NONE	Xylene (total)	0.125	J	5	ug/L

Plan

Sampling and Analysis Plan for Ecological Risk Assessment Support Sampling

Prepared for
The Dow Chemical Company

May 2004

CH2MHILL

Contents

Contents.....	iii
Abbreviations and Acronyms	v
1 Introduction	1-1
1.1 Background	1-1
1.2 Purpose and Objectives	1-1
1.3 Scope	1-1
1.4 Data Quality Objectives	1-2
1.5 Project Team.....	1-2
2 Field Activities.....	2-1
2.1 Access to ERA Plots	2-1
2.1.1 Utility Clearances.....	2-1
2.2 Sampling Procedures.....	2-1
2.2.1 Soil Sampling at Terrestrial Plots.....	2-1
2.2.2 Sediment Sampling at Aquatic Plots	2-2
2.3 Sample Containers, Preservation, and Holding Times.....	2-2
2.4 Field Quality Control.....	2-3
2.5 Sample Identification.....	2-3
2.5.1 Station Identification	2-3
2.5.2 Sample Identification.....	2-3
2.6 Sample Handling and Chain of Custody.....	2-4
2.7 Equipment Decontamination	2-4
2.8 Borehole Abandonment	2-5
3 Data Management and Validation	3-1
4 Health and Safety.....	4-1
4.1 Site Specific HS&E Plan Amendment	4-1
5 Project Schedule	5-1
6 References	6-1

Appendices

- A Sample Station IDs
- B Target Analyte Lists
- C Site Specific HS&E Plan Amendment

	Tables	Page
1-1	Data Quality Objectives	1-3
1-2	ERA Support Sampling Project Team	1-4
2-1	Ecological Research Plots for Soil/Sediment Sampling	2-5
2-2	Required Analytical Method, Sample Containers, Preservation, and Holding Times	2-6

Figures

1-1	General Location of Ecological Risk Assessment Sampling Plots
2-1	Location of ERA Plot 1—Reference Site Sanford, MI (Gladwin Forest)
2-2	Location of ERA Plot 2—Chippewa Nature Center
2-3	Location of ERA Plot 3—Downstream of Center Rd Bridge
2-4	Location of ERA Plot 4—Tittabawassee Township Park
2-5	Location of ERA Plot 5—Freeland Festival Park
2-6	Location of ERA Plot 6—Imerman Park
2-7	Conceptual ERA Plot Layout and Sampling Locations

Abbreviations and Acronyms

ATV	all-terrain vehicle
bgs	below ground surface
COC	chain of custody
Dow	The Dow Chemical Company
DPT	direct push technology
DQO	data quality objective
Entrix	Entrix, Inc.
ERA	ecological risk assessment
GIS	geographic information system
GPS	global positioning system
HS&E	Health, Safety, and Environment
HSP	health and safety plan
ID	identification
JHA	job hazard analysis
LTI	Limno-Tech Inc.
MDEQ	Michigan Department of Environmental Quality
MI-OSHA	Michigan Occupational Safety and Health Administration
MOCA	Midland Offsite Corrective Actions
MS/MSD	matrix spike/matrix spike duplicate
PCOI	potential contaminants of interest
ppt	part per trillion
QAPP	quality assurance project plan
RI	remedial investigation
SAP	sampling and analysis plan
site	Tittabawassee River study area
SOP	standard operating procedure
STAC	Safety Task Analysis Card
SWP	Safety Work Permit
USEPA	United States Environmental Protection Agency

1 Introduction

1.1 Background

Several previous investigations, including a comprehensive investigation conducted by the Michigan Department of Environmental Quality (MDEQ), have indicated that dioxins and furans may be present in sediment and soil in and along the Tittabawassee River. On June 12, 2003, MDEQ issued an Operating License to The Dow Chemical Company (Dow). One of the conditions of this Operating License was to conduct an ecological risk assessment (ERA) as part of the Midland Offsite Corrective Actions (MOCA) program remedial investigation (RI) process.

As part of the ERA, six study areas have been established in the vicinity of the Dow Midland facility (Plant) for the purpose of conducting ecological investigations. Five of these areas are located along the Tittabawassee River (one of which is upstream of Dow), and one is located upstream of the Plant along the Chippewa River. Each study area includes a pair of study plots; a terrestrial plot located along the river bank, and an aquatic plot located within the river. The general locations of the six ERA plots are shown in Figure 1-1. More information on the ERA is provided in the Ecological Risk Assessment Work Plan for the Tittabawassee River and Floodplain, April 2004 Draft (Entrix 2004).

1.2 Purpose and Objectives

The purpose of this Sampling and Analysis Plan (SAP) is to collect information on concentrations of dioxins/furans, as well as other potential contaminants of interest (PCOIs) in soil and sediment in the vicinity of the ERA study plots. The primary objective for sampling conducted under this SAP is to collect preliminary information on dioxins/furans and other PCOI concentrations in surface soil and sediment to support the ERA. A second objective is to gather some preliminary information on dioxin/furan and other PCOI concentrations in subsurface soil down to the water table to support the upcoming RI.

1.3 Scope

The scope of the field effort described in this SAP includes soil borings, soil sample collection and sediment sample collection within the vicinity of the ERA study plots. All samples will be analyzed for dioxins/furans and other PCOIs. PCOIs include the USEPA Appendix IX constituents (40 CFR Chapter 1, Part 264) plus some constituents typically analyzed by MDEQ, as identified in the QAPP. Additionally, several constituents currently monitored as part of the Plant's groundwater monitoring program have also been included as PCOIs.

Sampling and analysis will be performed in accordance with the Field SOPs established for the Dow Midland Off-site Corrective Actions (MOCA) program, and the Dow MOCA Quality Assurance Project Plan (QAPP) (CH2M HILL 2004c).

1.4 Data Quality Objectives

Data quality objectives (DQOs) are both qualitative and quantitative statements that define the type, quality, and quantity of data necessary to support the decisionmaking process during project activities. The DQO process used for this project follows the USEPA *Guidance for the Data Quality Objectives Process (EPA QA/G-4)* document (USEPA, 2000) and uses the seven-step DQO development process identified in the QAPP. Table 1-1 presents the DQOs associated with the sampling activities in support of the Dow MOCA ERA.

1.5 Project Team

The team members responsible for the effective execution of this SAP are identified by role in Table 1-2. The program management roles are further defined in the Dow MOCA *Program Management Plan* (CH2M HILL, 2004a).

TABLE 1-1
Data Quality Objectives
*Soil and Sediment Sampling to Support the Dow MOCA Ecological Risk Assessment
 Sampling and Analysis Plan*

State the Problem	Identify the Decisions	Identify Inputs to the Decisions	Define the Boundaries to the Study	Develop a Decision Rule	Specify Tolerable Limits on Decision Errors	Optimize the Design for Obtaining Data
1. Gather preliminary information on dioxins/furans in surface soil/sediment along Tittabawassee River and its floodplain to support the MOCA ecological risk assessment.	What other PCOIs are present in the vicinity of the ERA study plots, beyond dioxins/furans. What range of concentrations are present for dioxins/furans and other PCOIs?	Surface soil and sediment samples for use in the ERA. Analyses for dioxin/furans and Appendix IX constituents	Soil and sediment on the perimeter of the established ERA Study Plots.	For surface soil and sediment samples: decision rules for selecting PCOIs for further evaluation will be presented as part of the ERA.	A false positive decision error occurs when PCOIs are identified in surface soil/sediment above the laboratory detection level, when they are actually not present. This would result in investigating these PCOIs further when they are not present. A false negative decision error occurs when dioxins/furans and other PCOIs are not detected in surface soil/sediment when they actually are present. This could result in not evaluating the PCOI(s) further in the ERA process. Steps will be taken to control decision errors by adhering to sampling, analytical, and decontamination protocol specified in the quality assurance project plan (QAPP) and standard operating procedures (SOPs).	Collect four soil samples per ERA terrestrial plot (one at the midpoint between the plot corners) to a depth of 6" to provide spatial coverage around the zone of potential ecological exposure. Collect four sediment samples per ERA aquatic plot (immediately adjacent to terrestrial plot, parallel to the riverbank, 3 to 5 meters from the bank) to a depth of 2" to represent the zone of ecological exposure. Analyze the samples for dioxins/furans and other PCOIs.
2. Evaluate the vertical profile of dioxins/furans and other PCOI concentrations in soil along the Tittabawassee River floodplain.	Determine the vertical profile of dioxins/furans and other PCOIs in the Tittabawassee River floodplain down to groundwater.	Dioxins/furans and other PCOIs concentrations measured at various depths below ground surface at various points along the Tittabawassee River Floodplain.	Sampling locations established to support DQO #1, above. Subsurface soil down to water table. Specific ERA terrestrial plots where access is granted by the landowner for GeoProbe® sampling.	For subsurface soil: sampling is intended only to identify potential presence or absence of PCOIs in subsurface soil. No formal decision rule is required for these data.	Inaccurate profiling of dioxin/furan and other PCOI concentration in subsurface soil could lead to inaccurate inputs for establishing RI sampling design. Steps will be taken to control decision errors by adhering to sampling, analytical, and decontamination protocol specified in the QAPP and SOPs	Perform soil borings to groundwater. Collect discrete samples for dioxin/furan and other PCOI analysis at two foot intervals.

TABLE 1-2**ERA Support Sampling Project Team**

*Soil and Sediment Sampling to Support the DOW MOCA Ecological Risk Assessment
Sampling and Analysis Plan*

Responsibility	Individual	Affiliation	Contact Information
Senior Environmental Project Leader	Ben Baker	Dow	47 Building Midland, MI 48667 (989) 636-0787
Project Manager Leader/ Client Point-of-Contact	Gary Dyke	CH2M HILL	1111 Washington Street Midland, MI 48640 (989) 835-1187
Ecological Risk Assessment Lead	Alan Blankenship	Entrix	(517) 381-1434
Project Manager	Eric Kroger	CH2M HILL	(937) 228-3180, ext. 207
Field Team Leader	Paul Arps	CH2M HILL	1111 Washington Street Midland, MI 48640 (989) 835-5132
Field Lead	Heather Ziegelbauer	CH2M HILL	(414) 272-1052, ext. 403
MOCA Health and Safety Manager	Lisa Martin	CH2M HILL	(816) 224-6311
GIS Manager	Randy Vanslambrouck	CH2M HILL	1111 Washington Street Midland, MI 48640 (989) 832-2608
Data Manager	Linda Crownover	CH2M HILL	(215) 563-4244, ext. 448
Project Chemist	Herb Kelly	CH2M HILL	(352) 335-5877, ext. 2572
Contract Driller	Dale Elliot	Mateco, Inc.	(616) 863-6890
Contract Sediment Sampling	Tim Dekkar	LimnoTech Inc.	(734) 332-1200
Contract Laboratory—Dioxin/ Furan Analysis	Martha Maier	Alta Analytical Laboratories	1104 Windfield Way El Dorado Hills, CA 95762 (916) 933-1640
Contract Laboratory—Analysis of all other PCOIs	Randy Whittington	Gulf Coast Analytical Laboratories, Inc.	7979 GSRI Avenue Baton Rouge, LA 70820-7402 (225) 769-4900
			Fax: (225) 767 - 5717

2 Field Activities

The following provides some information necessary for the field team to locate the established ERA plots. Each of the six terrestrial and aquatic ERA plots measures 35 meters by 35 meters in size. The terrestrial plots are located on the bank of the Tittabawassee (or Chippewa) River, and are marked in the field with flags at each of the four corners. The aquatic plots are located within the river immediately adjacent to the terrestrial plots. They run parallel to the riverbank, beginning approximately 3 to 5 meters from the bank, and are not marked. Refer back to Figure 1-1 for the general location of each.

Two of these plot pairs are located on Dow property; while the other four are located on property owned by another entity. Table 2-1 identifies each plot, its general location, the owner of the property where the plot is located, and contact information. Figures 2-1 to 2-6 show the individual plot locations.

2.1 Access to ERA Plots

Before initiating field work, the appropriate notifications must be made and the necessary access agreements secured at each plot location. Before entering the Dow-owned plots, contact Dow Midland Security (refer to Table 2.1). Before entering the non-Dow owned plots, an Access Agreement with the property owner will be secured. Additionally, the field team lead should notify the property owner of the sampling activities the day before they are to commence. Note that access agreements are not necessary for the sediment plots, so long as they are accessed by boat.

2.1.1 Utility Clearances

Utility clearances will be necessary for the soil borings. The following service is available for identifying and locating underground utilities in Michigan:

Miss Dig System, Inc.
1-800-482-7171

The Miss Dig System should be contacted at least 3 business days prior to beginning this work. If questions arise in the field regarding utility clearances, the numbers of each utility owner are included in the Dow MOCA Program Health, Safety and Environment (HS&E) Plan (CH2M HILL, 2003).

2.2 Sampling Procedures

2.2.1 Soil Sampling at Terrestrial Plots

After taking the necessary steps to access the land where each ERA terrestrial plot is located, locate the plot in the field and verify the location by global positioning system (GPS). Retain the GPS coordinates of each corner, and note the coordinates noted in the field logbook.

Sampling will take place just outside the plot at the midpoint between each corner (four locations per plot). Refer to Figure 2-7 for a conceptual illustration of sampling locations to be used at each ecological risk assessment plot.

Sampling will be conducted using direct push technology (DPT) with a GeoProbe® mounted to an all-terrain vehicle (ATV) in accordance with *Drilling and Sampling Using Direct Push Techniques Field SOP* (CH2M HILL, 2004b). After identifying the sampling location, vegetation/debris will be removed from the surface, taking care not to disturb underlying soil (refer to *Manual Soil Sampling Field SOP* [CH2M HILL, 2004b]). Continuous soil cores will be collected at each location to groundwater.

Upon collection, all cores will undergo geological classification in accordance with *Soil Classification and Logging Field SOP* (CH2M HILL, 2004b). The core liners will then be opened, and VOC samples will then be collected from the surface sample and from every 2-foot interval (e.g., 2', 4', etc), in accordance with *VOC Soil and Sediment Sampling Field SOP* (CH2M HILL, 2004b). Samples will then be collected for all other identified analyses at every other 1-foot depth interval (e.g., 1'-2' interval, 3'-4' interval, etc.) down to groundwater. A final sample will be collected at groundwater, regardless of the bottom depth (i.e., if the water table is encountered at 7-feet, collect a sample with a 7-foot bottom depth). If bottom depth is less than one foot from the nearest identified interval, only collect the sample at the water table. For example if groundwater is encountered at 8.5 feet, collect the 7.5' to 8' interval in lieu of the 7'-8' interval. If additional sample materials is needed to acquire the necessary volume, then a second, co-located boring should be performed.

GPS coordinates will be collected at the time of sampling from each location and recorded in the field logbook.

2.2.2 Sediment Sampling at Aquatic Plots

For purposes of ERA support, the sediment samples will be collected from the surface (defined as the top 2 inches [\sim 0.2 feet] of sediment) to provide information on the zone of ecological exposure. These samples will be analyzed for all PCOIs. Surface (0"-2") sediment samples will be collected by methods specified in *Dredge Sediment Sampling* or *Scoop Sediment Sampling Field SOPs* (CH2M HILL, 2004b). The optimal method of sample collection will be at the discretion of the field team leader after evaluating field conditions. The sediment cores will be collected by the method deemed most appropriate by the field team lead, and consistent with Dow MOCA SOPs.

2.3 Sample Containers, Preservation, and Holding Times

The sample container and preservation requirements are presented in Table 2-2, below. Additional sample container and preservation requirements are given in the QAPP (CH2M HILL, 2004c). All containers should be requested from the contract laboratories for delivery to Midland before the project begins.

The activities associated with the sampling activities must be documented in field logbooks. The procedures and QC procedures for field logbook entries are located in the *Field SOPs* (CH2M HILL, 2004b) and QAPP (CH2M HILL, 2004c).

2.4 Field Quality Control

Field quality control samples will be collected as part of this investigation in accordance with Section 2.5 of the QAPP (CH2M HILL, 2004c). QC samples include the following:

- Field blanks, equipment blanks, and matrix spike/matrix spike duplicates (MS/MSDs) will be collected at a minimum frequency of 1 per 20 samples.
- Field duplicates will be collected at a minimum frequency of 1 per 10 samples.
- One trip blank will be submitted for analysis with each cooler containing samples submitted for analysis of volatile organics.

2.5 Sample Identification

2.5.1 Station Identification

Each sample station (or location) will be assigned a unique identifier according to Dow MOCA program protocol, according to the following scheme:

Area-Sequential Number, where:

Area = Three-letter identifier to represent the segment of the Tittabawassee River/floodplain where sampling is performed.

Sequential = Sequential 5-digit number, as obtained from the Sample ID Manager during project planning.

All 48 sampling station identifications (IDs) (24 soil, 24 sediment) are listed in Appendix A.

2.5.2 Sample Identification

Each sample will be assigned a unique identifier based on the following scheme:

Media-Sequential Number—Depth (as applicable)—QC (as applicable), where:

Date = Date (MMDDYY) of sample collection

Media = SOI = Soil
SED = Sediment
QCW = Quality Control Water Sample (e.g., field blank)

Sequential = Same sequential number as included in the Station ID (see above).

Depth = 3-digit code used to reflect maximum depth of the sampling interval in feet (e.g., 00.5 = 0.5 foot, or 6 inches; 01.0 = bottom depth of 1 foot.)

QC = Field Quality Control sample designator, as appropriate, where:

- D = Duplicate
- R = Equipment Blank
- B = Field Blank
- T = Trip Blank

Field duplicates and MS/MSDs will be assigned the same sequential number as the native sample. Note on the chain-of-custody (COC) form identifying that a particular sample shall be used for the MS/MSD is sufficient as long as sufficient volume is supplied. Equipment blanks can be identified with the same sequential number as the sample collected with the piece of equipment from which the equipment blank was obtained. Field blanks and Trip blanks require another unique identifier so they are not associated with one particular sample.

Examples sample IDs:

- **060304-SOI-02690-00.5** is a soil sample collected on June 3, 2004, at Station 02690, with a bottom depth of 6 inches below ground surface (bgs).
- **060804-SED-02710-00.2-D** is the field duplicate sediment sample collected on June 8, 2004, at Station 02710 with a bottom depth of 2 inches bgs.
- **061004-QCW-02755-B** is a field blank collected during the sampling on June 10, 2004. The sequential number is unique to this QC sample.

2.6 Sample Handling and Chain of Custody

The procedures used for proper packaging, shipping, and documentation of samples being transported from the field to the laboratory for analysis are given in the *Sample Handling and Shipping Custody Procedures Field SOP* (CH2M HILL, 2004b).

After samples are labeled and packaged, those intended for dioxin/furan analysis will be shipped to Alta Analytical Laboratory, Inc., at the following address:

Attn: Sample Receiving
Alta Analytical Laboratory, Inc.
1104 Windfield Way
El Dorado Hills, CA 95762
(916) 933-1640

Samples intended for analysis of other PCOIs (volatile organic compounds, semivolatile organic compounds, metals, pesticides, and polychlorinated biphenyls) will be shipped to Gulf Coast Analytical Laboratories, Inc., at the following address:

Attn: Sample Receiving
Gulf Coast Analytical Laboratories, Inc.
7979 GSRI Avenue
Baton Rouge, LA 70820-7402
(225) 769 - 4900

2.7 Equipment Decontamination

- Personal decontamination procedures will be those given in the Dow MOCA Health, Safety and Environment Plan (HSEP; CH2M HILL, 2003).
- All soil and sediment sampling equipment will be decontaminated in accordance with the *Field Decontamination Procedures Field SOP* (CH2M HILL, 2004b).

- Excess soil, disposable sampling equipment, and decontamination materials and liquids will be disposed of in accordance to the *Handling and Disposal of Investigative-Derived Waste Field SOP* (CH2M HILL. 2004b).

Note that the *Handling and Disposal of Investigative-Derived Waste Field SOP* does not address cuttings related to soil borings. Excess cuttings will be placed into the borehole.

2.8 Borehole Abandonment

After replacing excess soil into the borehole, the remaining void space will be backfilled with bentonite.

TABLE 2-1
Ecological Research Plots for Soil/Sediment Sampling
Soil and Sediment Sampling to Support the Ecological Risk Assessment Sampling and Analytical Plan

Plot Pair Location	Terrestrial Plot Center Point	Property Owner	Contact Information
Reference Site – Sanford, MI (Gladwin Forest)	N 43°40.12' W 084°23.0423'	Michigan Dept. of Natural Resources (MDNR)	Cortney Borgendy (989) 426-9205 <i>The day of sampling, contact:</i> Jerry Turner Sanford Fire Officer (989) 687-7771
Reference Site - Chippewa Nature Center	N 43° 36.013' W 84° 17.881'	Chippewa Nature Center	Tom Lenon (989) 631-0830
Downstream of Center Rd Bridge (75 m downstream of boat launch)	N 43°33.748' W 084°11.091'	The Dow Chemical Company	Jack Johnson (989) 638-1429
Tittabawassee Township Park	N 43°32.608' W 084°09.088'	The Dow Chemical Company	Jack Johnson (989) 638-1429
Freeland Festival Park	N 43°31.618' W 084°07.736'	City of Freeland, Michigan	Mike Schoen (989) 695-5245 (989) 928-5280
Imerman Park	N 43°27.156' W 084°04.818'	Saginaw County	John Schmude (989) 790-5280 jschmude@saginawcounty.com

TABLE 2-2

Required Analytical Method, Sample Containers, Preservation, and Holding Times
*Soil and Sediment Sampling to Support the Dow MOCA Ecological Risk Assessment
Sampling and Analysis Plan*

Analyses	Preparatory/ Analytical Method	Sample Matrix^a	Container^b	Qty	Preservative^c	Holding Time^d
Volatile Organic Compounds	SW-846 5030B/8260B	W	40-mL, glass	3	HCl, pH < 2, cool to 4°C	14 days
	SW-846 5035/8260B	S	5 g-Encore or equivalent sampling technique	2	Cool 4°C, or NaHSO ₄ , and Cool 4°C	48 hours from collection to preservation, 14 days to analysis
			40-mL, glass	1	Methanol, cool to 4°C	
Semivolatile Organic Compounds	SW-846 3510C/3520C/8270C	W	1-L amber glass	2	Cool 4°C	7/40 days ^e
	SW-846 3550B/8270C	S	4-oz glass	1	Cool 4°C	14/40 days ^f
Organochlorine Pesticides	SW-846 3510C/3520C/8081A	W	1-L amber glass	2	Cool 4°C	7/40 days ^e
	SW-846 3550B/8081A	S	4-oz glass	1	Cool 4°C	14/40 days ^f
	Cleanup – 3620B					
Organophosphorous Pesticides	SW-846 3510C/3520C/8141A	W	1-L amber glass	2	Cool 4°C	7/40 days ^e
	SW-846 3550B/8141A	S	4-oz glass	1	Cool 4°C	14/40 days ^f
Herbicides	SW-846 3510C/8151A	W	1-L amber glass	2	Cool 4°C	7/40 days ^e
	SW-846 3550B/8151A	S	4-oz glass	1	Cool 4°C	14/40 days ^f
Polychlorinated Biphenyls	SW-846 3510C/3520C/8082	W	1-L amber glass	2	Cool 4°C	7/40 days ^e
	SW-846 3550B/8082 Cleanup – 3665A	S	4-oz glass	1	Cool 4°C	14/40 days ^f
Dioxins/Furans	SW-846 8290/EPA Method 1613	W S	1-L amber glass 8-oz glass	2 1	Cool 4°C Cool 4°C	30/45 days ^g
Metals (total)	SW-846 3010A/3020A-SW60 10B Series	W	500-mL polyethylene	1	HNO ₃ , pH < 2 Cool 4°C	6 months
	SW-846 3050-SW6010B /7000 Series	S	2-oz glass	1	Cool 4°C,	
Mercury	SW-846 7470A	W	500-mL polyethylene	1	HNO ₃ , pH < 2 Cool 4°C	28 days
	SW-846 7471A	S	2-oz glass	1	Cool 4°C,	
Cyanide	SW-846 9010B/9012A	W	1-L polyethylene	1	pH>12 NaOH Ascorbic Acid as needed (.6g)	14 days

TABLE 2-2

Required Analytical Method, Sample Containers, Preservation, and Holding Times
*Soil and Sediment Sampling to Support the Dow MOCA Ecological Risk Assessment
Sampling and Analysis Plan*

Analyses	Preparatory/ Analytical Method	Sample Matrix^a	Container^b	Qty	Preservative^c	Holding Time^d
		S	4-oz glass	1	Cool 4°C	
Total Organic Carbon (TOC)	EPA 415.1/SW-846 9060	W	250-mL glass	1	H_2SO_4 or HCl pH < 2, Cool 4°C	28 days
			2-oz glass	1		28 days
Percent Moisture	EPA 160.3/ASTM D2216	S	2-oz glass	1	None	NA
Particle Size Analysis	ASTM D422	S	8-oz glass	1	None	NA

Notes:

Sample container and volume requirements will be specified by the analytical laboratory performing the tests.
Three times the required volume should be collected for samples designated as MS/MSD samples.

^aSample matrix: S = surface soil, subsurface soil, sediment; W = surface water.

^bAll containers will be sealed with Teflon®-lined screw caps.

^cAll samples will be stored promptly at 4°C in an insulated chest.

^dHolding times are from the time of sample collection.

^e7 days to extraction for water, 40 days for analysis.

^f14 days to extraction for soil, 40 days for analysis.

^g30 days to extraction for water, 45 days for analysis.

Source: SW-846, third edition, Update III (June 1997).

°C = Degrees Centigrade

NaOH = Sodium hydroxide

TCLP = Toxicity characteristic leaching procedure

mL = Milliliter

g = Gram

L = Liter

oz = Ounce

HCl = Hydrochloric acid

HNO_3 = Nitric acid

EPA = U.S. Environmental Protection Agency

H_2SO_4 = Sulfuric acid

ASTM = American Society for Testing and Materials

NA = Not applicable

3 Data Management and Validation

All data collected under this field effort will be managed in accordance with the Data Management Plan for Dow MOCA (CH2M HILL, 2004d).

As specified in the QAPP, all analytical data generated to support the Dow MOCA program will be validated. Ten percent of the data packages will be validated to Level IV by a third party subcontractor to CH2M HILL. All other data packages will be validated to Level III by the CH2M HILL project chemist (or designee).

Based on the planned sampling schedule and the number of samples to be collected, it is anticipated that one data package for each requested analysis will be validated to Level IV by a third party to meet the program requirement.

Following validation, data will be entered into a central database. The data are then accessible for evaluation, interpretation and reporting activities.

4 Health and Safety

4.1 Site Specific HS&E Plan Amendment

A Site-Specific Amendment to the HS&E Plan has been prepared for this project and has been approved by The Health and Safety Manager (HSM). It is included with this SAP as Appendix C. Prior to beginning field work, Field Team members must read and sign the amendment, and follow its requirements.

5 Project Schedule

The soil borings are scheduled for the week of June 1, 2004. Based on that start date, the schedule will be as follows:

Activity	Anticipated Duration	Anticipated Start Date	Anticipated End Date
Work Planning, SAP Development, Contractor Procurement, Access Agreements	4 Weeks	May 3, 2004	May 26, 2004
Soil Sampling	4 Days	June 1, 2004	June 4, 2004
Sediment Sampling	4 Days	June 14, 2004	June 18, 2004
Laboratory Analysis	28 Days*	June 2, 2004	July 16, 2004
Data Validation/Data Entry	21 Days	July 6, 2004	August 6, 2004
ERA Data Available	0 Days	August 6, 2004	NA
Data Interpretation and Reporting	21 Days	August 6, 2004	August 27, 2004
Internal review of Draft Tech Memorandum Summarizing Findings of Depth Profiling	3 Days	August 30, 2004	September 3, 2004
Draft Tech Memorandum to Client	0 Days	September 10, 2004	NA

* From date last samples are received.

6 References

- CH2M HILL. 2003. Dow MOCA Health, Safety and Environment Plan. December
- CH2M HILL. 2004a. *Dow MOCA Program Management Plan*.
- CH2M HILL. 2004b. *Field SOPs*. April
- CH2M HILL. 2004c. *Quality Assurance Project Plan (QAPP)*. April
- CH2M HILL. 2004d. *Dow MOCA Data Management Plan*. March
- Entrix, Inc. (Entrix). 2004. Ecological Risk Assessment Work Plan for the Tittabawassee River and Floodplain. April Draft.
- USEPA. 2000. Guidance for the Data Quality Objectives Process (EPA QA/G-4). EPA guidance document EPA/600/R-96/055. August.
- USEPA. 2001. Supplemental Guidance to RAGS: Region 4 Bulletins, Ecological Risk Assessment. Originally published November 1995. Web site version last updated November 30, 2001:
<http://www.epa.gov/region4/waste/ots/ecolbul.htm>

Figures

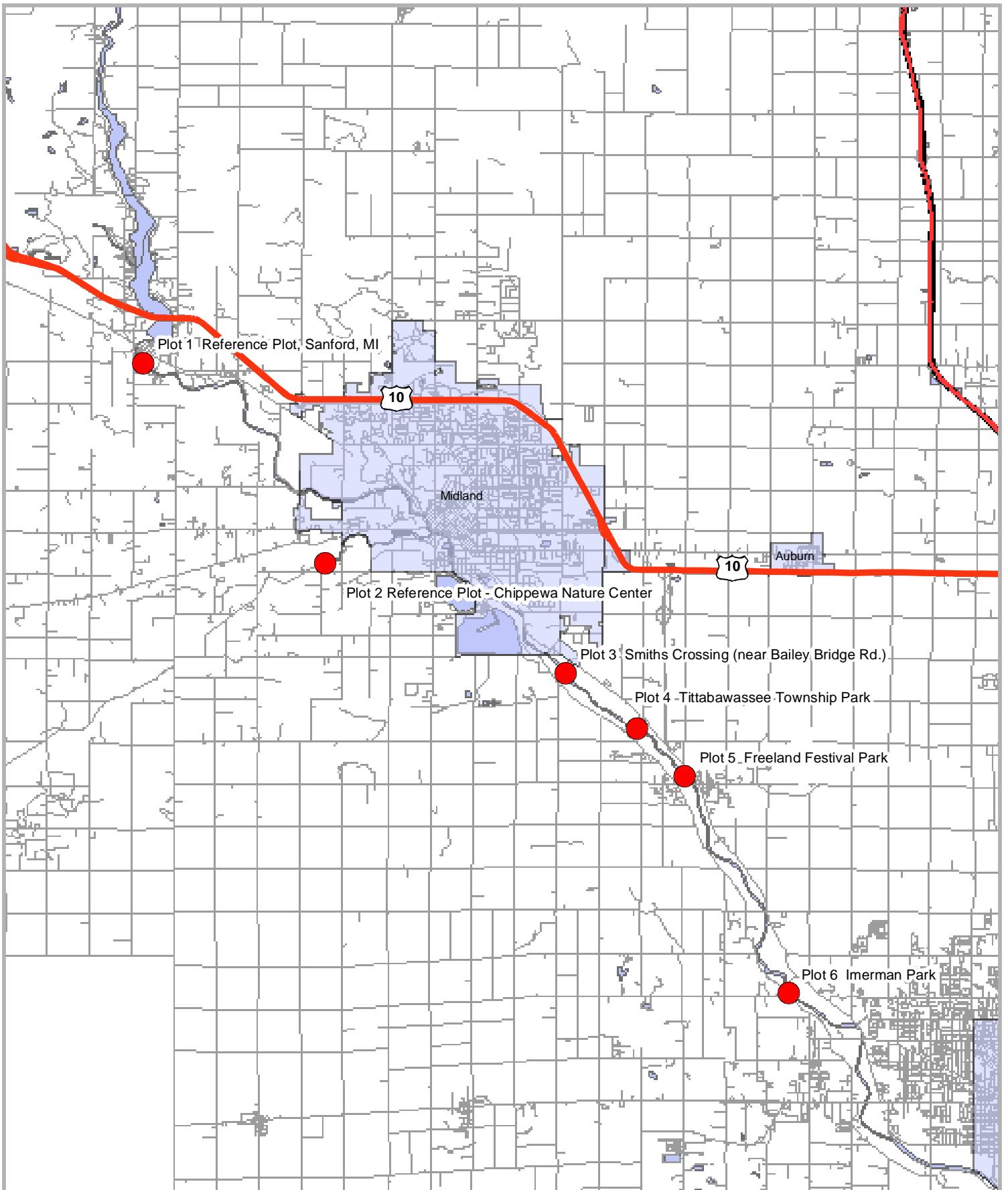


FIGURE 1-1
General Location of ERA Sampling Plots
Sampling and Analysis Plan for Ecological Risk Assessment Support Sampling
Dow Midland Offsite Corrective Actions Program

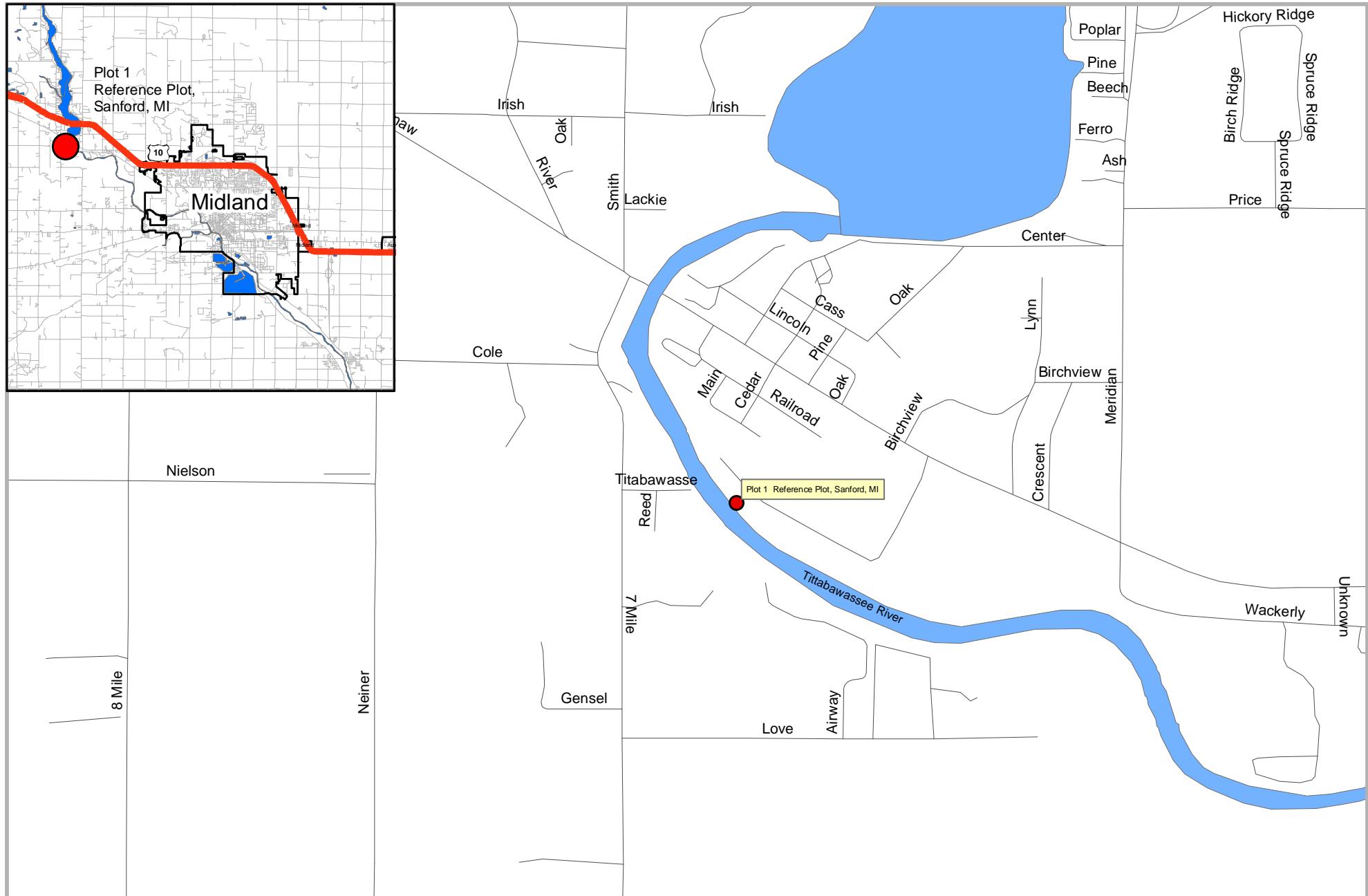


FIGURE 2-1
Location of ERA Plot 1
Reference Plot Sanford, MI (Gladwin Forest)
Sampling and Analysis Plan for Ecological Risk Assessment Support Sampling
Dow Midland Offsite Corrective Actions Program

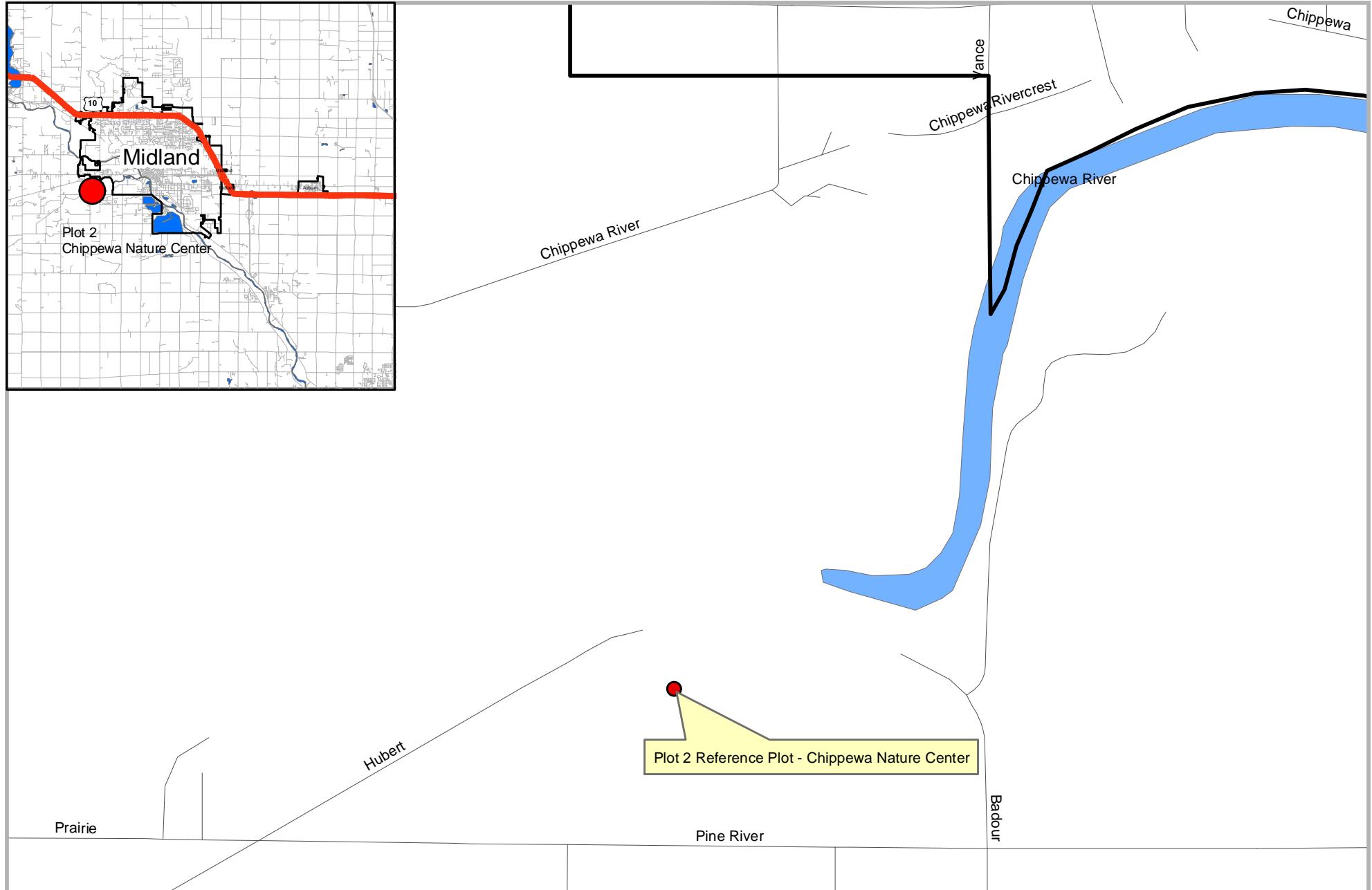


FIGURE 2-2
Location of ERA Plot 2
Reference Plot - Chippewa Nature Center
Sampling and Analysis Plan for Ecological Risk Assessment Support Sampling
Dow Midland Offsite Corrective Actions Program



FIGURE 2-3
Location of ERA Plot 3
Smiths Crossing (near Bailey Bridge Rd.)
Sampling and Analysis Plan for Ecological Risk Assessment Support Sampling
Dow Midland Offsite Corrective Actions Program

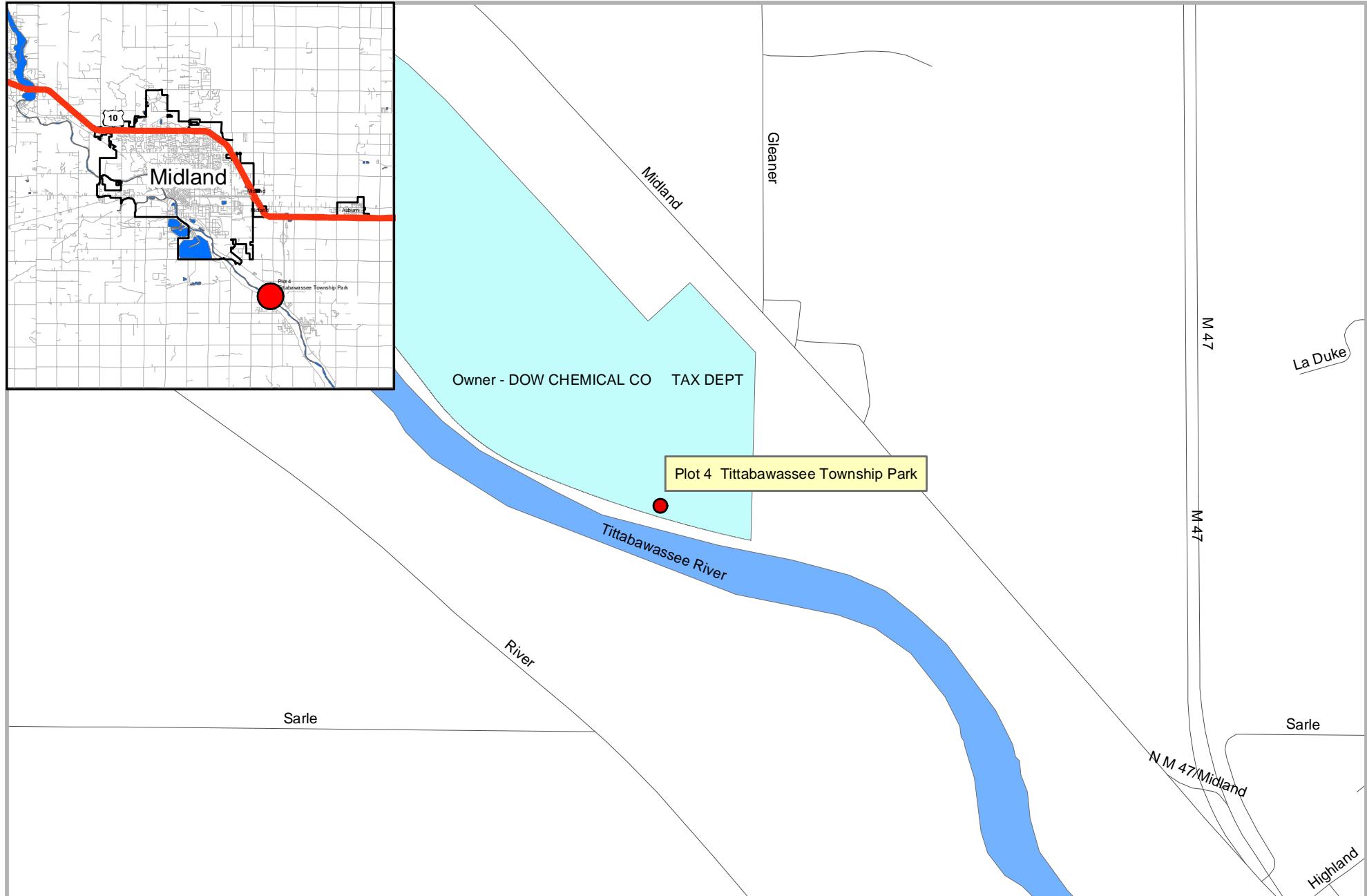


FIGURE 2-4
Location of ERA Plot 4
Tittabawassee Township Park
Sampling and Analysis Plan for Ecological Risk Assessment Support Sampling
Dow Midland Offsite Corrective Actions Program

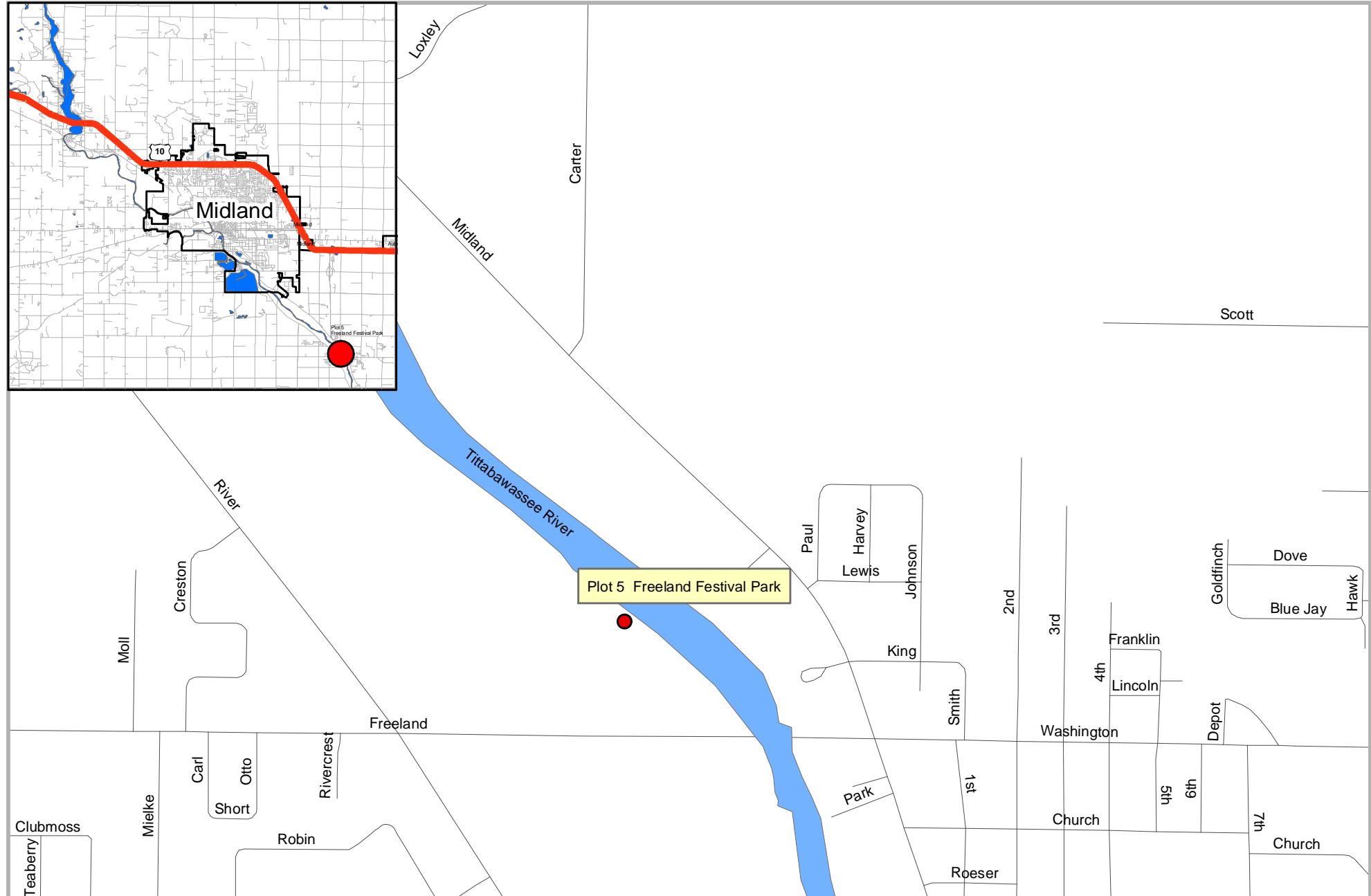


FIGURE 2-5
Location of ERA Plot 5
Freeland Festival Park

Sampling and Analysis Plan for Ecological Risk Assessment Support Sampling
Dow Midland Offsite Corrective Actions Program

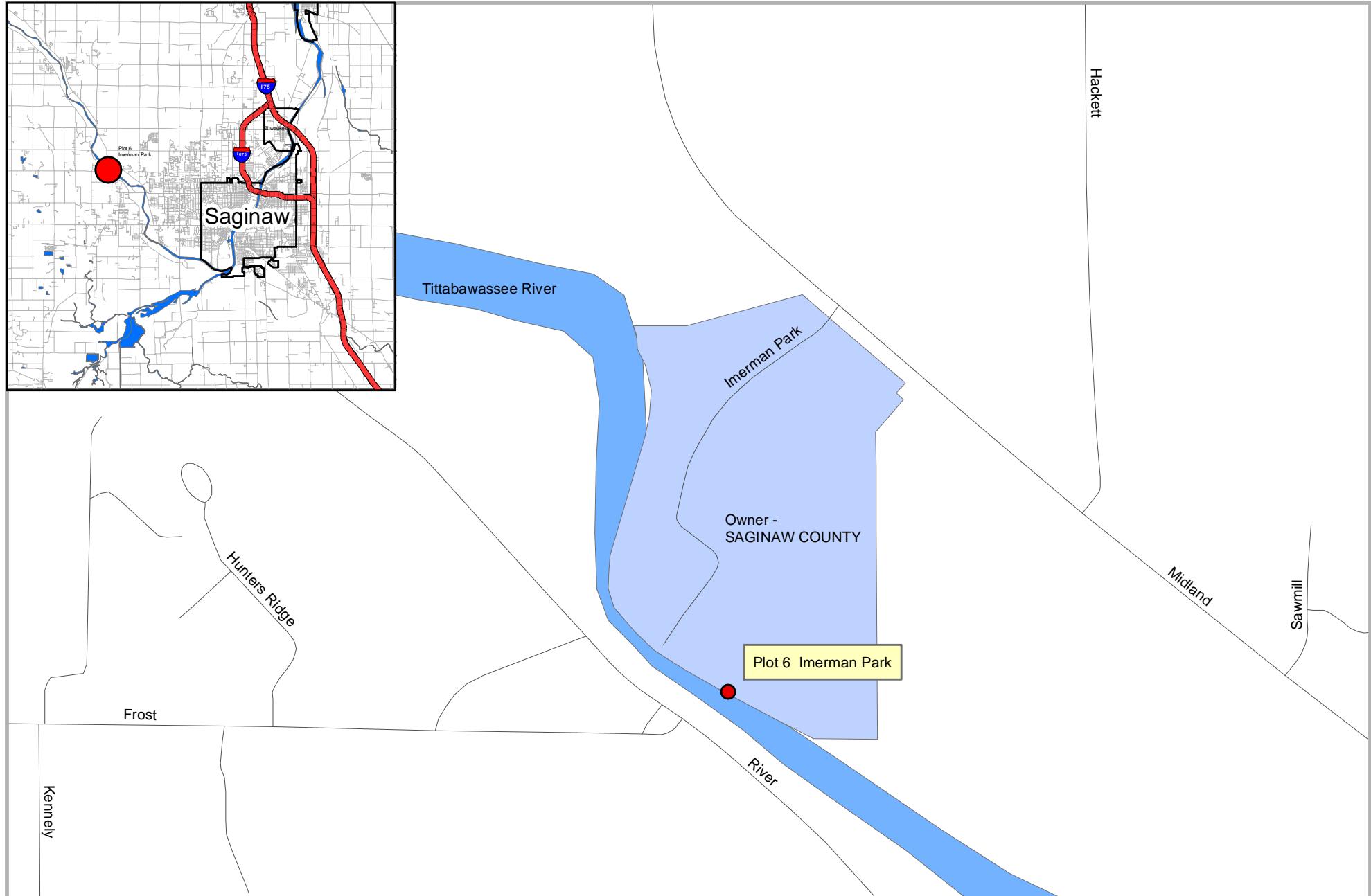
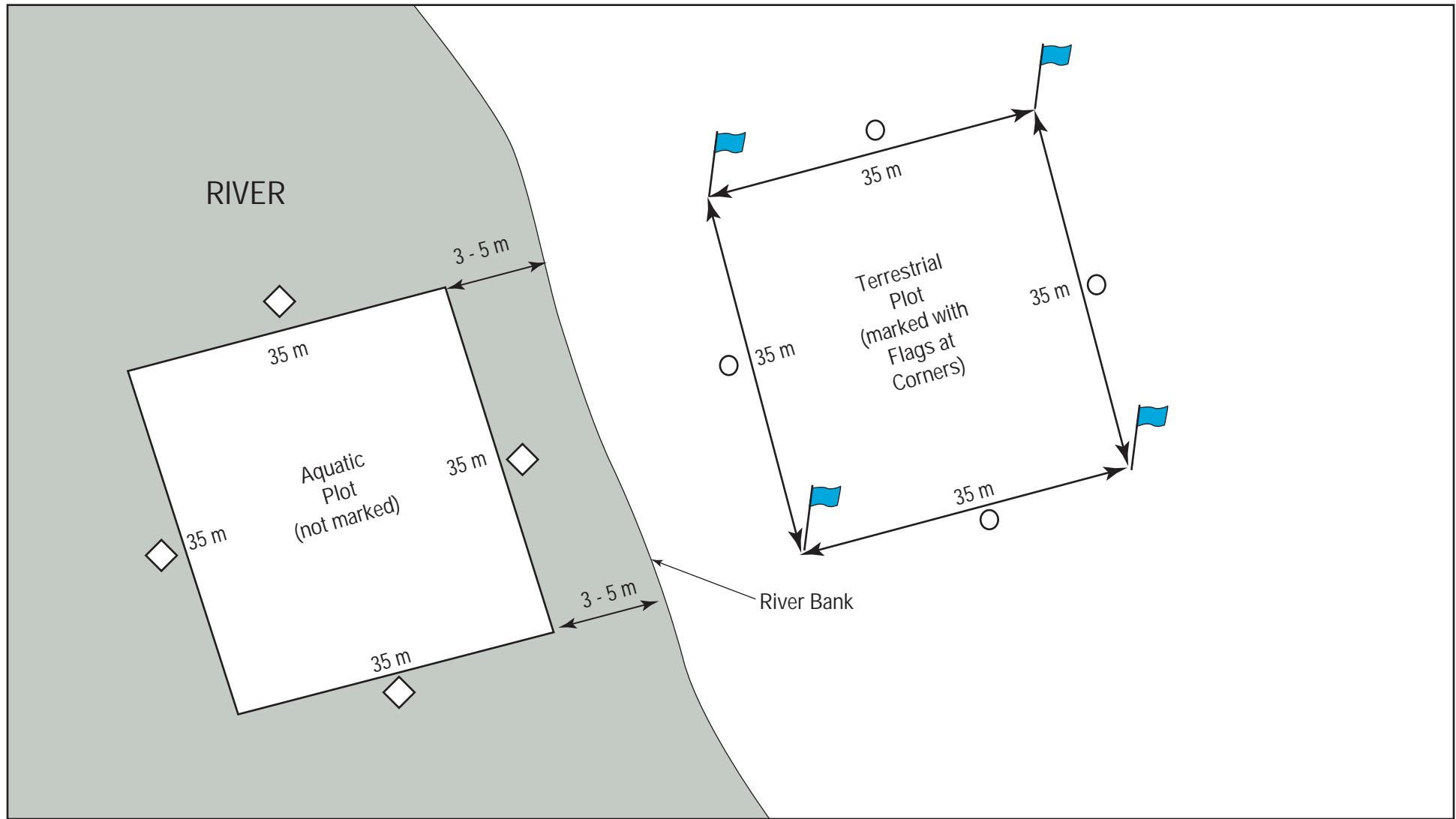


FIGURE 2-6
Location of ERA Plot 6
Imerman Park

Sampling and Analysis Plan for Ecological Risk Assessment Support Sampling
Dow Midland Offsite Corrective Actions Program



LEGEND

- ◇ Aquatic Plot Sample Location
- Terrestrial Plot Sample Location
- FLAG Flag locating Terrestrial Plot

NOT TO SCALE

E052004014MKE 188194.01.ER.ER Conc ERA Plat 5-25-2004III

FIGURE 2-7
Conceptual ERA Plot Layout and Sampling Locations
Sampling and Analysis Plan for Ecological Risk Assessment Support Sampling
Dow Midland Offsite Corrective Actions Program

Appendix A
Sample Station IDs

Appendix A

Identification of Samples Collected

ERA Support Soil and Sediment Sampling and Analysis Plan

Dow Midland Off-site Corrective Actions Program

ERA INVESTIGATION PLOTS:		SAMPLES COLLECTED FROM EACH ERA PLOT:				
Plot Name	Terrestrial Plot Location	Station ID	Sample Media	Bottom Depth (ft)	Sample ID ¹	TAL ²
Plot 1 Reference Site - Sanford, MI Gladwin Forest	N:43° 40.122' W: 84° 23.0423'	TRU-02687	Soil ³	0.5	mmddyy-SOI-02687-00.5	A,B
		TRU-02687	Soil	2.0	mmddyy-SOI-02687-02.0	A
		TRU-02687	Soil	4.0	mmddyy-SOI-02687-04.0	A
		TRU-02687	Soil	6.0	mmddyy-SOI-02687-06.0	A
		TRU-02687	Soil	8.0	mmddyy-SOI-02687-08.0	A
		TRU-02688	Soil	0.5	mmddyy-SOI-02688-00.5	A,B
		TRU-02688	Soil	2.0	mmddyy-SOI-02688-02.0	A
		TRU-02688	Soil	4.0	mmddyy-SOI-02688-04.0	A
		TRU-02688	Soil	6.0	mmddyy-SOI-02688-06.0	A
		TRU-02688	Soil	8.0	mmddyy-SOI-02688-08.0	A
		TRU-02689	Soil	0.5	mmddyy-SOI-02689-00.5	A,B
		TRU-02689	Soil	2.0	mmddyy-SOI-02689-02.0	A
		TRU-02689	Soil	4.0	mmddyy-SOI-02689-04.0	A
		TRU-02689	Soil	6.0	mmddyy-SOI-02689-06.0	A
		TRU-02689	Soil	8.0	mmddyy-SOI-02689-08.0	A
		TRU-02690	Soil	0.5	mmddyy-SOI-02690-00.5	A,B
		TRU-02690	Soil	2.0	mmddyy-SOI-02690-02.0	A
		TRU-02690	Soil	4.0	mmddyy-SOI-02690-04.0	A
		TRU-02690	Soil	6.0	mmddyy-SOI-02690-06.0	A
		TRU-02690	Soil	8.0	mmddyy-SOI-02690-08.0	A
		TRU-02691	Sediment ⁴	0.2	mmddyy-SED-02691-00.2	A
		TRU-02692	Sediment	0.2	mmddyy-SED-02692-00.2	A
		TRU-02693	Sediment	0.2	mmddyy-SED-02693-00.2	A
		TRU-02694	Sediment	0.2	mmddyy-SED-02694-00.2	A
Plot 2 Reference Site - Chippewa Nature Preserve	N: 43° 36.013' W: 84° 17.881'	CHR-02695	Soil	0.5	mmddyy-SOI-02695-00.5	A,B
		CHR-02695	Soil	2.0	mmddyy-SOI-02695-02.0	A
		CHR-02695	Soil	4.0	mmddyy-SOI-02695-04.0	A
		CHR-02695	Soil	6.0	mmddyy-SOI-02695-06.0	A
		CHR-02695	Soil	8.0	mmddyy-SOI-02695-08.0	A
		CHR-02696	Soil	0.5	mmddyy-SOI-02696-00.5	A,B
		CHR-02696	Soil	2.0	mmddyy-SOI-02696-02.0	A
		CHR-02696	Soil	4.0	mmddyy-SOI-02696-04.0	A
		CHR-02696	Soil	6.0	mmddyy-SOI-02696-06.0	A
		CHR-02696	Soil	8.0	mmddyy-SOI-02696-08.0	A
		CHR-02697	Soil	0.5	mmddyy-SOI-02697-00.5	A,B
		CHR-02697	Soil	2.0	mmddyy-SOI-02697-02.0	A
		CHR-02697	Soil	4.0	mmddyy-SOI-02697-04.0	A
		CHR-02697	Soil	6.0	mmddyy-SOI-02697-06.0	A
		CHR-02697	Soil	8.0	mmddyy-SOI-02697-08.0	A
		CHR-02698	Soil	0.5	mmddyy-SOI-02698-00.5	A,B
		CHR-02698	Soil	2.0	mmddyy-SOI-02698-02.0	A
		CHR-02698	Soil	4.0	mmddyy-SOI-02698-04.0	A
		CHR-02698	Soil	6.0	mmddyy-SOI-02698-06.0	A
		CHR-02698	Soil	8.0	mmddyy-SOI-02698-08.0	A
		CHR-02699	Sediment	0.2	mmddyy-SED-02699-00.2	A
		CHR-02700	Sediment	0.2	mmddyy-SED-02700-00.2	A
		CHR-02701	Sediment	0.2	mmddyy-SED-02701-00.2	A
		CHR-02702	Sediment	0.2	mmddyy-SED-02702-00.2	A

Appendix A

Identification of Samples Collected

ERA Support Soil and Sediment Sampling and Analysis Plan

Dow Midland Off-site Corrective Actions Program

ERA INVESTIGATION PLOTS:		SAMPLES COLLECTED FROM EACH ERA PLOT:				
Plot Name	Terrestrial Plot Location	Station ID	Sample Media	Bottom Depth (ft)	Sample ID ¹	TAL ²
Plot 3 Smith's Crossing (near Bailey Bridge Rd.)	N: 43° 33.748' W: 84° 11.091'	MIC-02703	Soil	0.5	mmddyy-SOI-02703-00.5	A,B
		MIC-02703	Soil	2.0	mmddyy-SOI-02703-02.0	A
		MIC-02703	Soil	4.0	mmddyy-SOI-02703-04.0	A
		MIC-02703	Soil	6.0	mmddyy-SOI-02703-06.0	A
		MIC-02703	Soil	8.0	mmddyy-SOI-02703-08.0	A
		MIC-02704	Soil	0.5	mmddyy-SOI-02704-00.5	A,B
		MIC-02704	Soil	2.0	mmddyy-SOI-02704-02.0	A
		MIC-02704	Soil	4.0	mmddyy-SOI-02704-04.0	A
		MIC-02704	Soil	6.0	mmddyy-SOI-02704-06.0	A
		MIC-02704	Soil	8.0	mmddyy-SOI-02704-08.0	A
		MIC-02705	Soil	0.5	mmddyy-SOI-02705-00.5	A,B
		MIC-02705	Soil	2.0	mmddyy-SOI-02705-02.0	A
		MIC-02705	Soil	4.0	mmddyy-SOI-02705-04.0	A
		MIC-02705	Soil	6.0	mmddyy-SOI-02705-06.0	A
		MIC-02705	Soil	8.0	mmddyy-SOI-02705-08.0	A
		MIC-02706	Soil	0.5	mmddyy-SOI-02706-00.5	A,B
		MIC-02706	Soil	2.0	mmddyy-SOI-02706-02.0	A
		MIC-02706	Soil	4.0	mmddyy-SOI-02706-04.0	A
		MIC-02706	Soil	6.0	mmddyy-SOI-02706-06.0	A
		MIC-02706	Soil	8.0	mmddyy-SOI-02706-08.0	A
		MIC-02707	Sediment	0.2	mmddyy-SED-02707-00.2	A
		MIC-02708	Sediment	0.2	mmddyy-SED-02708-00.2	A
		MIC-02708	Sediment	0.2	mmddyy-SED-02708-00.2-D	A
		MIC-02709	Sediment	0.2	mmddyy-SED-02709-00.2	A
		MIC-02710	Sediment	0.2	mmddyy-SED-02710-00.2	A
Plot 4: Smith's Crossing	N: 43° 32.608' W: 84° 09.088'	FRE-02711	Soil	0.5	mmddyy-SOI-02711-00.5	A,B
		FRE-02711	Soil	2.0	mmddyy-SOI-02711-02.0	A
		FRE-02711	Soil	4.0	mmddyy-SOI-02711-04.0	A
		FRE-02711	Soil	6.0	mmddyy-SOI-02711-06.0	A
		FRE-02711	Soil	8.0	mmddyy-SOI-02711-08.0	A
		FRE-02712	Soil	0.5	mmddyy-SOI-02712-00.5	A,B
		FRE-02712	Soil	2.0	mmddyy-SOI-02712-02.0	A
		FRE-02712	Soil	4.0	mmddyy-SOI-02712-04.0	A
		FRE-02712	Soil	6.0	mmddyy-SOI-02712-06.0	A
		FRE-02712	Soil	8.0	mmddyy-SOI-02712-08.0	A
		FRE-02713	Soil	0.5	mmddyy-SOI-02713-00.5	A,B
		FRE-02713	Soil	2.0	mmddyy-SOI-02713-02.0	A
		FRE-02713	Soil	4.0	mmddyy-SOI-02713-04.0	A
		FRE-02713	Soil	6.0	mmddyy-SOI-02713-06.0	A
		FRE-02713	Soil	8.0	mmddyy-SOI-02713-08.0	A
		FRE-02714	Soil	0.5	mmddyy-SOI-02714-00.5	A,B
		FRE-02714	Soil	2.0	mmddyy-SOI-02714-02.0	A
		FRE-02714	Soil	4.0	mmddyy-SOI-02714-04.0	A
		FRE-02714	Soil	6.0	mmddyy-SOI-02714-06.0	A
		FRE-02714	Soil	8.0	mmddyy-SOI-02714-08.0	A
		FRE-02715	Sediment	0.2	mmddyy-SED-02715-00.2	A
		FRE-02716	Sediment	0.2	mmddyy-SED-02716-00.2	A
		FRE-02717	Sediment	0.2	mmddyy-SED-02717-00.2	A
		FRE-02718	Sediment	0.2	mmddyy-SED-02718-00.2	A

Appendix A

Identification of Samples Collected

ERA Support Soil and Sediment Sampling and Analysis Plan

Dow Midland Off-site Corrective Actions Program

ERA INVESTIGATION PLOTS:		SAMPLES COLLECTED FROM EACH ERA PLOT:				
Plot Name	Terrestrial Plot Location	Station ID	Sample Media	Bottom Depth (ft)	Sample ID ¹	TAL ²
Plot 5: Freeland Festival Park	N: 43° 31.618' W: 84° 07.736'	FRE-02719	Soil	0.5	mmddyy-SOI-02719-00.5	A,B
		FRE-02719	Soil	2.0	mmddyy-SOI-02719-02.0	A
		FRE-02719	Soil	4.0	mmddyy-SOI-02719-04.0	A
		FRE-02719	Soil	6.0	mmddyy-SOI-02719-06.0	A
		FRE-02719	Soil	8.0	mmddyy-SOI-02719-08.0	A
		FRE-02720	Soil	0.5	mmddyy-SOI-02720-00.5	A,B
		FRE-02720	Soil	2.0	mmddyy-SOI-02720-02.0	A
		FRE-02720	Soil	4.0	mmddyy-SOI-02720-04.0	A
		FRE-02720	Soil	6.0	mmddyy-SOI-02720-06.0	A
		FRE-02720	Soil	8.0	mmddyy-SOI-02720-08.0	A
		FRE-02721	Soil	0.5	mmddyy-SOI-02721-00.5	A,B
		FRE-02721	Soil	2.0	mmddyy-SOI-02721-02.0	A
		FRE-02721	Soil	4.0	mmddyy-SOI-02721-04.0	A
		FRE-02721	Soil	6.0	mmddyy-SOI-02721-06.0	A
		FRE-02721	Soil	8.0	mmddyy-SOI-02721-08.0	A
		FRE-02722	Soil	0.5	mmddyy-SOI-02722-00.5	A,B
		FRE-02722	Soil	2.0	mmddyy-SOI-02722-02.0	A
		FRE-02722	Soil	4.0	mmddyy-SOI-02722-04.0	A
		FRE-02722	Soil	6.0	mmddyy-SOI-02722-06.0	A
		FRE-02722	Soil	8.0	mmddyy-SOI-02722-08.0	A
		FRE-02723	Sediment	0.2	mmddyy-SED-02723-00.2	A
		FRE-02724	Sediment	0.2	mmddyy-SED-02724-00.2	A
		FRE-02725	Sediment	0.2	mmddyy-SED-02725-00.2	A
		FRE-02726	Sediment	0.2	mmddyy-SED-02726-00.2	A
		FRE-02726	Sediment	0.2	mmddyy-SED-02726-00.2-D	A
Plot 6: Imerman Park	N: 43° 27.156' W: 84° 04.818'	THT-02727	Soil	0.5	mmddyy-SOI-02727-00.5	A,B
		THT-02727	Soil	2.0	mmddyy-SOI-02727-02.0	A
		THT-02727	Soil	4.0	mmddyy-SOI-02727-04.0	A
		THT-02727	Soil	6.0	mmddyy-SOI-02727-06.0	A
		THT-02727	Soil	8.0	mmddyy-SOI-02727-08.0	A
		THT-02728	Soil	0.5	mmddyy-SOI-02728-00.5	A,B
		THT-02728	Soil	2.0	mmddyy-SOI-02728-02.0	A
		THT-02728	Soil	4.0	mmddyy-SOI-02728-04.0	A
		THT-02728	Soil	6.0	mmddyy-SOI-02728-06.0	A
		THT-02728	Soil	8.0	mmddyy-SOI-02728-08.0	A
		THT-02729	Soil	0.5	mmddyy-SOI-02729-00.5	A,B
		THT-02729	Soil	2.0	mmddyy-SOI-02729-02.0	A
		THT-02729	Soil	4.0	mmddyy-SOI-02729-04.0	A
		THT-02729	Soil	6.0	mmddyy-SOI-02729-06.0	A
		THT-02729	Soil	8.0	mmddyy-SOI-02729-08.0	A
		THT-02730	Soil	0.5	mmddyy-SOI-02730-00.5	A,B
		THT-02730	Soil	2.0	mmddyy-SOI-02730-02.0	A
		THT-02730	Soil	4.0	mmddyy-SOI-02730-04.0	A
		THT-02730	Soil	6.0	mmddyy-SOI-02730-06.0	A
		THT-02730	Soil	8.0	mmddyy-SOI-02730-08.0	A
		THT-02731	Sediment	0.2	mmddyy-SED-02731-00.2	A
		THT-02732	Sediment	0.2	mmddyy-SED-02732-00.2	A
		THT-02733	Sediment	0.2	mmddyy-SED-02733-00.2	A
		THT-02734	Sediment	0.2	mmddyy-SED-02734-00.2	A
		THT-02734	Sediment	0.2	mmddyy-SED-02734-00.2-D	A

Notes:

1. The "mmddyy" portion of the Sample ID will be replaced in the field with actual date of sample collection.
2. Target Analyte List (TAL) tables are located in Appendix B.
3. Soil samples will be collected at the surface and every 2' (e.g., bottom depths of 2', 4', 6', etc.) until reaching groundwater. The number of samples collected may be more or less than what is indicated above. Also, field QC samples will also be collected in accordance with the QAPP, including 1/10 field duplicates and 1/20 MS/MSD samples.
4. Sediment samples will be collected from the top 2 inches at each sample location. Three duplicate samples are indicated above and the other field QC samples will be collected as specified in the QAPP.

Appendix B
Target Analyte Lists

TABLE B-1

Target Analyte List A for Soils and Sediments—All Selected Analytes

*Soil and Sediment Sampling to Support the Dow MOCA ERA**Sampling and Analysis Plan*

Parameter/Method	Analyte	Soil/Sediment		Ecological Screening Value for Soil		Ecological Screening Value for Sediment	
		RL	Unit	Value	Unit	Value	Unit
Mercury SW7471A	Mercury	100	µg/Kg	0.1	mg/Kg	0.13	mg/Kg
Metals SW-846 6010B	Antimony	2000	µg/Kg	3.5	mg/Kg	12	mg/Kg
	Arsenic	1000	µg/Kg	10	mg/Kg	7.24	mg/Kg
	Barium	2000	µg/Kg	165	mg/Kg		
	Beryllium	200	µg/Kg	1.1	mg/Kg		
	Cadmium	500	µg/Kg	1.6	mg/Kg	1	mg/Kg
	Chromium	1000	µg/Kg	0.4	mg/Kg	52.3	mg/Kg
	Cobalt	5000	µg/Kg				
	Copper	2500	µg/Kg	40	mg/Kg	18.7	mg/Kg
	Lead	1000	µg/Kg	50	mg/Kg	30.2	mg/Kg
	Lithium	2000	µg/Kg	2.0	mg/Kg		
	Nickel	1000	µg/Kg	30	mg/Kg	15.9	mg/Kg
	Selenium	500	µg/Kg	0.81	mg/Kg		
	Silver	1000	µg/Kg	2.0	mg/Kg	2	mg/Kg
	Thallium	2000	µg/Kg	1.0	mg/Kg		
	Tin	5000	µg/Kg	53	mg/Kg		
	Vanadium	1000	µg/Kg	2.0	mg/Kg		
	Zinc	2000	µg/Kg	50	mg/Kg	124	mg/Kg
Total Cyanide SW-846 9010B/ 9012A	Total Cyanide	0.5	mg/kg	0.9	mg/Kg		
Pesticides SW8081A	a-BHC	20	µg/Kg	0.0025	mg/Kg		
	b-BHC	20	µg/Kg	0.001	mg/Kg		
	d-BHC	20	µg/Kg				
	g-BHC (Lindane)	20	µg/Kg	0.00005	mg/Kg	3.3	µg/Kg
Additional Compound	BP-6 (PPB)	*	µg/Kg				
	a-Chlordane	25	µg/Kg				
	g-Chlordane	25	µg/Kg				
	4,4'-DDD	20	µg/Kg				
	4,4'-DDE	20	µg/Kg				
	4,4'-DDT	20	µg/Kg				
	Aldrin	20	µg/Kg	0.0025	mg/Kg	3.3	µg/Kg
	Dieldrin	20	µg/Kg	0.0005	mg/Kg	3.3	µg/Kg
	Endosulfan I	20	µg/Kg				
	Endosulfan II	20	µg/Kg				
	Endosulfan Sulfate	20	µg/Kg				
	Endrin	20	µg/Kg	0.001	mg/Kg	3.3	µg/Kg
	Endrin Aldehyde	20	µg/Kg				
	Endrin Ketone	20	µg/Kg				
	Heptachlor	20	µg/Kg				
	Heptachlor Epoxide	20	µg/Kg				
	Methoxychlor	20	µg/Kg				
Additional Compound	Mirex	*	µg/Kg				
	Toxaphene	170	µg/Kg				
	Chlordane	25	µg/Kg			1.7	µg/Kg
	Chlorobenzilate	50	µg/Kg				
	Diallate	50	µg/Kg				
	Isodrin	50	µg/Kg				
Additional Compound	Kepone	50	µg/Kg				
PCBs/SW8082	Aroclor-1016	33	µg/Kg			33	µg/Kg
	Aroclor-1221	33	µg/Kg			67	µg/Kg
	Aroclor -1232	33	µg/Kg			33	µg/Kg
	Aroclor -1242	33	µg/Kg			33	µg/Kg
	Aroclor -1248	33	µg/Kg			33	µg/Kg
	Aroclor -1254	33	µg/Kg			33	µg/Kg
	Aroclor -1260	33	µg/Kg			33	µg/Kg
Additional Compound	Aroclor-1262	33	µg/Kg			33	µg/Kg
Additional Compound	Aroclor-1268	33	µg/Kg			33	µg/Kg
Organophosphorus Pesticides SW8141A	Dimethoate	50	µg/Kg				
	Disulfoton	50	µg/Kg				
	Famphur	50	µg/Kg				
	O,O,O-Triethyl phosphorothioate	70	µg/Kg				
	O,O-Diethyl O-2-pyrazinyl phosphorthioate (Thionazin)	70	µg/Kg				
	Parathion	50	µg/Kg				
	Parathion, methyl	50	µg/Kg				
	Phorate	50	µg/Kg				
	Tetraethyl dithiopyrophosphate (Sulfotep)	70	µg/Kg				
Chlorinated Phenoxy Acid Herbicides SW8151A	2,4-D	33	µg/Kg				
	2,4,5-T	33	µg/Kg				
	Silvex (2,4,5-TP)	33	µg/Kg				

TABLE B-1

Target Analyte List A for Soils and Sediments—All Selected Analytes

*Soil and Sediment Sampling to Support the Dow MOCA ERA**Sampling and Analysis Plan*

Parameter/Method	Analyte	Soil/Sediment		Ecological Screening Value for Soil		Ecological Screening Value for Sediment	
		RL	Unit	Value	Unit	Value	Unit
VOCs SW8260B	1,1,1,2-Tetrachloroethane	5.0	µg/Kg				
	1,1,1-Trichloroethane	5.0	µg/Kg				
	1,1,2,2-Tetrachloroethane	5.0	µg/Kg				
	1,1,2-Trichloroethane	5.0	µg/Kg				
	1,1-Dichloroethane	5.0	µg/Kg				
	1,1-Dichloroethene	5.0	µg/Kg				
	1,2,3-Trichlorobenzene	5.0	µg/Kg				
	1,2,3-Trichloropropane	5.0	µg/Kg				
	1,2,4-Trichlorobenzene	5.0	µg/Kg				
	1,2,4-Trimethylbenzene	5.0	µg/Kg				
	1,2-Dichloroethane	5.0	µg/Kg	0.4	mg/Kg		
	1,2-Dichlorobenzene	5.0	µg/Kg				
	1,2-Dibromo-3-chloropropane	5.0	µg/Kg	700	mg/Kg		
	1,2-Dichloropropane	5.0	µg/Kg				
	1,2-Dibromoethane (EDB)	5.0	µg/Kg				
	1,3,5-Trimethylbenzene	5.0	µg/Kg				
	1,3-Dichlorobenzene	5.0	µg/Kg				
	1,4-Dichlorobenzene	5.0	µg/Kg				
	2-Hexanone	10	µg/Kg				
	4-methyl-2-pentanone	10	µg/Kg				
	Acetone	100	µg/Kg				
	Acrylonitrile	50	µg/Kg	1000	mg/Kg		
	Benzene	5.0	µg/Kg	0.05	mg/Kg		
	Bromobenzene	5.0	µg/Kg				
	Bromochloromethane	5.0	µg/Kg				
	Bromodichloromethane	5.0	µg/Kg				
	Bromoform	5.0	µg/Kg				
	Bromomethane	10	µg/Kg				
	Carbon disulfide	5.0	µg/Kg				
	Carbon tetrachloride	5.0	µg/Kg	1000	mg/Kg		
	Chlorobenzene (each)	5.0	µg/Kg	0.05	mg/Kg		
	Chloroethane	10	µg/Kg				
	Chloroform	5.0	µg/Kg	0.001	mg/Kg		
	Chloromethane	10	µg/Kg				
	Cis-1,2-DCE	5.0	µg/Kg				
	Cis-1,3-Dichloropropene	5.0	µg/Kg				
	Dibromochloromethane	5.0	µg/Kg				
	Dibromomethane	5.0	µg/Kg				
	Dichlorodifluoromethane	10	µg/Kg				
	Diethyl ether	100	µg/Kg				
	Ethylbenzene	5.0	µg/Kg	0.05	mg/Kg		
	Isobutanol	25	µg/Kg				
	Isopropylbenzene	5.0	µg/Kg				
	Methylene chloride	5.0	µg/Kg				
	Methyl t-butyl ether (MTBE)	10	µg/Kg				
	MEK (2-Butanone)	25	µg/Kg				
	n-Butylbenzene	5.0	µg/Kg				
	n-Propylbenzene	5.0	µg/Kg				
	m,p-Xylene	10	µg/Kg				
	o-Xylene	5.0	µg/Kg				
	Methyl Iodide	10	µg/Kg				
	Pentachloroethane	5.0	µg/Kg	0.1	mg/Kg		
	p-Isopropyltoluene	5.0	µg/Kg				
	Sec-Butylbenzene	5.0	µg/Kg				
	Styrene	5.0	µg/Kg	0.001	mg/Kg		
	Trichloroethene	5.0	µg/Kg				
	Tert-Butylbenzene	5.0	µg/Kg				
	Tetrachloroethene	5.0	µg/Kg	0.01	mg/Kg		
	Tetrahydrofuran	1000	µg/Kg	0.1	mg/Kg		
	Toluene	5.0	µg/Kg	0.05	mg/Kg		
	Trans-1,2-Dichloroethene	5.0	µg/Kg				
	Trans-1,3-Dichloropropene	5.0	µg/Kg				
	Trans-1,4-dichloro-2-butene	100	µg/Kg	1000	mg/Kg		
	Trichlorofluoromethane	10	µg/Kg				
	Vinyl chloride	10	µg/Kg	0.01	mg/Kg		
	Acetonitrile	100	µg/Kg				
	Acrolein	50	µg/Kg				
	Allyl Chloride	10	µg/Kg				
	Chloroprene	50	µg/Kg				
	Ethyl Methacrylate	10	µg/Kg				
	Methyl methacrylate	10	µg/Kg				
	Methacrylonitrile	10	µg/Kg				
	Propionitrile, Ethyl Cyanide	100	µg/Kg				
	Vinyl Acetate	10	µg/Kg				
	Xylenes	10	µg/Kg	0.05	mg/Kg		

TABLE B-1

Target Analyte List A for Soils and Sediments—All Selected Analytes

*Soil and Sediment Sampling to Support the Dow MOCA ERA**Sampling and Analysis Plan*

Parameter/Method	Analyte	Soil/Sediment		Ecological Screening Value for Soil		Ecological Screening Value for Sediment	
		RL	Unit	Value	Unit	Value	Unit
Semivolatile organics Base/Neutral Extractables	1,2,3,4-Tetrachlorobenzene	330	µg/Kg	1.0	mg/Kg	330	µg/Kg
	1,2,4,5-Tetrachlorobenzene	330	µg/Kg				
	1,2,4-Trichlorobenzene	330	µg/Kg				
	2,4-Dinitrotoluene	330	µg/Kg				
	2,6-Dinitrotoluene	330	µg/Kg				
	2-Chloronaphthalene	330	µg/Kg				
	2-Methylnaphthalene	330	µg/Kg				
	2-Nitroaniline	1700	µg/Kg				
	3-Nitroaniline	1700	µg/Kg				
	4-Bromophenyl phenyl ether	330	µg/Kg				
	4-Chlorophenyl phenyl ether	330	µg/Kg				
	4-Nitroaniline	1700	µg/Kg				
	Acenaphthylene	330	µg/Kg				
	Acenaphthene	330	µg/Kg				
	Anthracene	330	µg/Kg	20	mg/Kg	330	µg/Kg
	Azobenzene	330	µg/Kg	0.1	mg/Kg	330	µg/Kg
	Benzo (a) anthracene	330	µg/Kg	0.1	mg/Kg	330	µg/Kg
	Benzo (a) pyrene	330	µg/Kg				
	Benzo (k) fluoranthene	330	µg/Kg				
	Benzo (b) fluoranthene	330	µg/Kg				
	Benzo (g,h,i) perylene	330	µg/Kg				
	Bis (2-chloroethoxy) methane	330	µg/Kg				
	Bis (2-chloroethyl) ether	330	µg/Kg				
	Bis (2-chloroisopropyl) ether	330	µg/Kg				
	Bis (2-ethylhexyl) phthalate	330	µg/Kg				
	Butyl benzylphthalate	330	µg/Kg				
	Carbazole	330	µg/Kg				
	Chrysene	330	µg/Kg	200	mg/Kg	330	µg/Kg
	Di-n-butylphthalate	330	µg/Kg				
	Di-n-octylphthalate	330	µg/Kg				
	Dibenz (a,h) anthracene	330	µg/Kg				
	Dibenzofuran	330	µg/Kg				
	Diethyl phthalate	330	µg/Kg				
	Dimethyl phthalate	330	µg/Kg				
	Fluoranthene	330	µg/Kg				
	Fluorene	330	µg/Kg	0.1	mg/Kg	330	µg/Kg
Additional Compound	Hexabromobenzene	*	µg/Kg	30	mg/Kg	330	µg/Kg
	Hexachlorobenzene	330	µg/Kg	0.0025	mg/Kg	330	µg/Kg
	Hexachlorobutadiene	330	µg/Kg				
	Hexachlorocyclopentadiene	330	µg/Kg				
	Hexachloroethane	330	µg/Kg	10	mg/Kg	330	µg/Kg
	Indeno (1,2,3-cd) pyrene	330	µg/Kg				
	Isophorone	330	µg/Kg				
	n-Nitrosodimethylamine	330	µg/Kg				
	n-Nitrosodiphenylamine	330	µg/Kg				
	n-Nitrosodi-n-propylamine	330	µg/Kg	20	mg/Kg	330	µg/Kg
	Naphthalene	330	µg/Kg				
	Nitrobenzene	330	µg/Kg	0.1	mg/Kg	330	µg/Kg
	Phenanthrene	330	µg/Kg	40	mg/Kg	330	µg/Kg
	Pyrene	330	µg/Kg	0.1	mg/Kg	330	µg/Kg
	Pyridine	330	µg/Kg	0.1	mg/Kg	330	µg/Kg
Additional Compound	Ronnel	*	µg/Kg	0.1	mg/Kg	330	µg/Kg
	Semivolatile organics	2,4,5-Trichlorophenol	330	µg/Kg	4.0	mg/Kg	
	Acid Extractables	2,4,6-Trichlorophenol	330	µg/Kg	10	mg/Kg	
	SW8270C	2,4-Dichlorophenol	330	µg/Kg	20	mg/Kg	
	2,4-Dimethylphenol	330	µg/Kg				
	2,4-Dinitrophenol	1700	µg/Kg				
	2-Chlorophenol	330	µg/Kg				
	2-Methylphenol	330	µg/Kg				
	2-Nitrophenol	330	µg/Kg				
	4,6-Dinitro-2-methylphenol	1700	µg/Kg				
	4-Chloro-3-methylphenol	330	µg/Kg	7.0	mg/Kg		
	4-Nitrophenol	1700	µg/Kg				
	Pentachlorophenol	800	µg/Kg				
Additional Compound	Phenol	330	µg/Kg	0.002	mg/Kg		
	4-Tert-Butylphenol	*	µg/Kg	0.05	mg/Kg		
	1,3-Dinitrobenzene	330	µg/Kg				
	1,4-Dioxane	1700	µg/Kg				
	1-Naphthylamine	1700	µg/Kg				
	2,3,4,6-Tetrachlorophenol	330	µg/Kg				
	2,6-Dichlorophenol	330	µg/Kg				
	2-Naphthylamine	1700	µg/Kg				
	2-Picoline	660	µg/Kg				
	3,3'-Dichlorobenzidine	2000	µg/Kg				
	3,3'-Dimethylbenzidine	1700	µg/Kg				

TABLE B-1

Target Analyte List A for Soils and Sediments—All Selected Analytes

*Soil and Sediment Sampling to Support the Dow MOCA ERA**Sampling and Analysis Plan*

Parameter/Method	Analyte	Soil/Sediment		Ecological Screening Value for Soil		Ecological Screening Value for Sediment	
		RL	Unit	Value	Unit	Value	Unit
Semivolatile organics Acid Extractables (Continued)	3-Methylcholanthrene	660	µg/Kg				
	3 & 4-Methylphenol	330	µg/Kg				
	1,4-Naphthoquinone	1700	µg/Kg				
	4-Aminobiphenyl	330	µg/Kg				
	4-Chloroaniline	330	µg/Kg				
	4-Nitroquinoline 1-oxide	1600	µg/Kg				
	5-Nitro-o-toluidine	660	µg/Kg				
	7,12-Dimethylbenz(a)anthracene	330	µg/Kg				
	a,a-Dimethylphenethylamine	1700	µg/Kg				
	Acetophenone	330	µg/Kg				
	Aniline	1700	µg/Kg				
	Aramite	1700	µg/Kg				
	Benzyl Alcohol	1300	µg/Kg				
	Diphenylamine	330	µg/Kg				
	Ethyl methanesulfonate	330	µg/Kg				
	Hexachlorophene	1700	µg/Kg				
	Hexachloropropene	1700	µg/Kg				
	Isosafrole	660	µg/Kg				
	Methapyrylene	330	µg/Kg				
	Methyl methansulfonate	330	µg/Kg				
	N-Nitrosodiethylamine	330	µg/Kg				
	N-Nitrosodi-n-butylamine	330	µg/Kg				
	N-Nitrosomethylamine	330	µg/Kg				
	N-Nitrosomorpholine	330	µg/Kg				
	N-Nitrosopiperidene	330	µg/Kg				
	N-Nitrosopyrrolidine	330	µg/Kg				
	o-Toluidine	330	µg/Kg				
Additional Compound	o-Phenyl phenol	*	µg/Kg				
	p-(Dimethylamino)azobenzene	330	µg/Kg				
	Pentachlorobenzene	330	µg/Kg				
	Pentachloronitrobenzene	330	µg/Kg				
	Phenacetin	660	µg/Kg				
	p-Phenylenediamine	3300	µg/Kg				
	Pronamide	330	µg/Kg				
	Safrole	330	µg/Kg				
	Dinoseb	660	µg/Kg				
	sym-Trinitrobenzene (1,3,5-)	330	µg/Kg				
Dioxins and Furans SW8290	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	1.0	ng/Kg				
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	5.0	ng/Kg				
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	5.0	ng/Kg				
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	5.0	ng/Kg				
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	5.0	ng/Kg				
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	5.0	ng/Kg				
	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	10	ng/Kg				
	2,3,7,8-Tetrachlorodibenzofuran (TCDF)	1.0	ng/Kg				
	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	5.0	ng/Kg				
	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	5.0	ng/Kg				
	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	5.0	ng/Kg				
	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	5.0	ng/Kg				
	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	5.0	ng/Kg				
	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	5.0	ng/Kg				
	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	5.0	ng/Kg				
	1,2,3,4,7,8,9-Octachlorodibenzofuran (OCDF)	10	ng/Kg				

Additional Compound - The laboratory will purchase a standard for this compound and perform Method Detection Limit (MDL) Studies prior to analysis of the samples.

* - Reporting Limits will be determined upon completion of the MDL Studies.

TABLE B-2

Target Analyte List B for Soils and Sediments—All Selected Analytes

*Soil and Sediment Sampling to Support the Dow MOCA ERA**Sampling and Analysis Plan*

Parameter/Method	Analyte	Soil/Sediment	
		RL	Unit
TOC SW-846 9060	Total Organic Carbon	100	mg/kg
Particle Size ASTM D-422	Particle Size		

TABLE B--3

Target Analyte List for Aqueous Matrix—All Selected Analytes
*Soil and Sediment Sampling to Support the Dow MOCA ERA
Sampling and Analysis Plan*

Parameter/Method	Analyte	Water	
		RL	Unit
Mercury SW7470A	Mercury	0.2	µg/L
Metals SW-846 6010B	Antimony	20	µg/L
	Arsenic	10	µg/L
	Barium	20	µg/L
	Beryllium	1.0	µg/L
	Cadmium	5.0	µg/L
	Chromium	10	µg/L
	Cobalt	50	µg/L
	Copper	25	µg/L
	Lead	10	µg/L
	Lithium	20	µg/L
	Nickel	25	µg/L
	Selenium	5.0	µg/L
	Silver	10	µg/L
	Thallium	20	µg/L
	Tin	50	µg/L
	Vanadium	10	µg/L
	Zinc	20	µg/L
Cyanide SW-846 9010B/9012A	Total Cyanide	0.01	mg/L
TOC EPA 415.1	Total Organic Carbon	2.0	mg/L
Pesticides SW8081A	a-BHC	0.05	µg/L
	b-BHC	0.05	µg/L
	d-BHC	0.05	µg/L
	g-BHC (Lindane)	0.05	µg/L
Additional Compound	BP-6 (PPB)	*	µg/L
	a-Chlordane	0.05	µg/L
	g-Chlordane	0.05	µg/L
	4,4'-DDD	0.1	µg/L
	4,4'-DDE	0.1	µg/L
	4,4'-DDT	0.1	µg/L
	Aldrin	0.05	µg/L
	Dieldrin	0.1	µg/L
	Endosulfan I	0.1	µg/L
	Endosulfan II	0.1	µg/L
	Endosulfan Sulfate	0.1	µg/L
	Endrin	0.1	µg/L
	Endrin Aldehyde	0.1	µg/L
	Endrin Ketone	0.1	µg/L
	Heptachlor	0.05	µg/L
	Heptachlor Epoxide	0.05	µg/L
	Methoxychlor	0.5	µg/L
Additional Compound	Mirex	*	µg/L
	Toxaphene	1.0	µg/L
	Chlordane	0.5	µg/L
	Chlorobenzilate	5.0	µg/L
	Diallate	3.0	µg/L
	Isodrin	2.0	µg/L
Additional Compound	Kepone	2.0	µg/L
PCBs/SW8082	Aroclor-1016	0.5	µg/L
	Aroclor-1221	0.5	µg/L
	Aroclor -1232	0.5	µg/L
	Aroclor -1242	0.5	µg/L
	Aroclor -1248	0.5	µg/L
	Aroclor -1254	0.5	µg/L
	Aroclor -1260	0.5	µg/L
Additional Compound	Aroclor -1262	0.5	µg/L
Additional Compound	Aroclor -1268	0.5	µg/L
Organophosphorus Pesticides SW8141A	Dimethoate	5.0	µg/L
	Disulfoton	2.0	µg/L
	Famphur	2.0	µg/L
	O,O,O-Triethyl phosphorothioate	2.0	µg/L
	O,O-Diethyl O-2-pyrazinyl phosphorothioate (Thionazin)	2.0	µg/L
	Parathion	2.0	µg/L
	Parathion, methyl	2.0	µg/L
	Phorate	2.0	µg/L
	Tetraethyl dithiopyrophosphate (Sulfotopp')	2.0	µg/L
Chlorinated Phenoxy Acid Herbicides SW8151A	2,4-D	1.0	µg/L
	2,4,5-T	1.0	µg/L
	Silvex (2,4,5-TP)	1.0	µg/L

TABLE B-3

Target Analyte List for Aqueous Matrix—All Selected Analytes

Soil and Sediment Sampling to Support the Dow MOCA ERA

Sampling and Analysis Plan

Parameter/Method	Analyte	Water	
		RL	Unit
VOCs	1,1,1,2-Tetrachloroethane	1.0	µg/L
SW8260B	1,1,1-Trichloroethane	1.0	µg/L
	1,1,2,2-Tetrachloroethane	1.0	µg/L
	1,1,2-Trichloroethane	1.0	µg/L
	1,1-Dichloroethane	1.0	µg/L
	1,1-Dichloroethene	1.0	µg/L
	1,2,3-Trichlorobenzene	1.0	µg/L
	1,2,3-Trichloropropane	1.0	µg/L
	1,2,4-Trichlorobenzene	1.0	µg/L
	1,2,4-Trimethylbenzene	1.0	µg/L
	1,2-Dichloroethane	1.0	µg/L
	1,2-Dichlorobenzene	1.0	µg/L
	1,2-Dibromo-3-chloropropane	0.5	µg/L
	1,2-Dichloropropane	1.0	µg/L
	1,2-Dibromoethane (EDB)	1.0	µg/L
	1,3,5-Trimethylbenzene	1.0	µg/L
	1,3-Dichlorobenzene	1.0	µg/L
	1,4-Dichlorobenzene	1.0	µg/L
	2-Hexanone	5.0	µg/L
	4-methyl-2-pentanone	5.0	µg/L
	Acetone	25	µg/L
	Acrylonitrile	10	µg/L
	Benzene	1.0	µg/L
	Bromobenzene	1.0	µg/L
	Bromochloromethane	1.0	µg/L
	Bromodichloromethane	1.0	µg/L
	Bromoform	1.0	µg/L
	Bromomethane	1.0	µg/L
	Carbon disulfide	1.0	µg/L
	Carbon tetrachloride	1.0	µg/L
	Chlorobenzene	1.0	µg/L
	Chloroethane	1.0	µg/L
	Chloroform	1.0	µg/L
	Chloromethane	1.0	µg/L
	Cis-1,2-DCE	1.0	µg/L
	Cis-1,3-Dichloropropene	1.0	µg/L
	Dibromochloromethane	1.0	µg/L
	Dibromomethane	1.0	µg/L
	Dichlorodifluoromethane	1.0	µg/L
	Diethyl ether	10	µg/L
	Ethylbenzene	5.0	µg/L
	Isobutanol	25	µg/L
	Isopropylbenzene	1.0	µg/L
	Methylene chloride	5.0	µg/L
	Methyl t-butyl ether (MTBE)	5.0	µg/L
	MEK (2-Butanone)	10	µg/L
	n-Butylbenzene	1.0	µg/L
	n-Propylbenzene	1.0	µg/L
	m,p-Xylene	2.0	µg/L
	o-Xylene	1.0	µg/L
	Methyl Iodide	1.0	µg/L
	Pentachloroethane	5.0	µg/L
	p-Isopropyltoluene	1.0	µg/L
	Sec-Butylbenzene	1.0	µg/L
	Styrene	1.0	µg/L
	Trichloroethene	1.0	µg/L
	Tert-Butylbenzene	1.0	µg/L
	Tetrachloroethene	1.0	µg/L
	Tetrahydrofuran	100	µg/L
	Toluene	1.0	µg/L
	Trans-1,2-Dichloroethene	1.0	µg/L
	Trans-1,3-Dichloropropene	1.0	µg/L
	Trans-1,4-dichloro-2-butene	10.0	µg/L
	Trichlorofluoromethane	1.0	µg/L
	Vinyl chloride	1.0	µg/L
	Acetonitrile	50	µg/L
	Acrolein	50	µg/L
	Allyl Chloride	5.0	µg/L
	Chloroprene	5.0	µg/L
	Ethyl Methacrylate	5.0	µg/L
	Methyl Methacrylate	5.0	µg/L
	Methacrylonitrile	5.0	µg/L
	Propionitrile, Ethyl Cyanide	50	µg/L
	Vinyl Acetate	10	µg/L
	Xylenes	5.0	µg/L

TABLE B-3

Target Analyte List for Aqueous Matrix—All Selected Analytes
Soil and Sediment Sampling to Support the Dow MOCA ERA
Sampling and Analysis Plan

Parameter/Method	Analyte	Water	
		RL	Unit
Semivolatile organics Base/Neutral Extractables SW8270C	1,2,3,4-Tetrachlorobenzene	5.0	µg/L
	1,2,4,5-Tetrachlorobenzene	5.0	µg/L
	1,2,4-Trichlorobenzene	5.0	µg/L
	2,4-Dinitrotoluene	5.0	µg/L
	2,6-Dinitrotoluene	5.0	µg/L
	2-Chloronaphthalene	5.0	µg/L
	2-Methylnaphthalene	5.0	µg/L
	2-Nitroaniline	20	µg/L
	3-Nitroaniline	20	µg/L
	4-Bromophenyl phenyl ether	5.0	µg/L
	4-Chlorophenyl phenyl ether	5.0	µg/L
	4-Nitroaniline	20	µg/L
	Acenaphthylene	5.0	µg/L
	Acenaphthene	5.0	µg/L
	Anthracene	5.0	µg/L
	Azobenzene	5.0	µg/L
	Benzo (a) anthracene	5.0	µg/L
	Benzo (a) pyrene	5.0	µg/L
	Benzo (k) fluoranthene	5.0	µg/L
	Benzo (b) fluoranthene	5.0	µg/L
	Benzo (g,h,i) perylene	5.0	µg/L
	Bis (2-chloroethoxy) methane	5.0	µg/L
	Bis (2-chloroethyl) ether	5.0	µg/L
	Bis (2-chloroisopropyl) ether	5.0	µg/L
	Bis (2-ethylhexyl) phthalate	5.0	µg/L
Additional Compound	Butyl benzylphthalate	5.0	µg/L
	Carbazole	5.0	µg/L
	Chrysene	5.0	µg/L
	Di-n-butylphthalate	5.0	µg/L
	Di-n-octylphthalate	5.0	µg/L
	Dibenz (a,h) anthracene	5.0	µg/L
	Dibenzofuran	5.0	µg/L
	Diethyl phthalate	5.0	µg/L
	Dimethyl phthalate	5.0	µg/L
	Fluoranthene	5.0	µg/L
	Fluorene	5.0	µg/L
	Hexabromobenzene	*	µg/L
	Hexachlorobenzene	5.0	µg/L
	Hexachlorobutadiene	5.0	µg/L
Additional Compound	Hexachlorocyclopentadiene	5.0	µg/L
	Hexachloroethane	5.0	µg/L
	Indeno (1,2,3-cd) pyrene	5.0	µg/L
	Isophorone	5.0	µg/L
	n-Nitrosdimethylamine	5.0	µg/L
	n-Nitrosodiphenylamine	5.0	µg/L
	n-Nitrosodi-n-propylamine	5.0	µg/L
	Naphthalene	5.0	µg/L
	Nitrobenzene	5.0	µg/L
	Phenanthrene	5.0	µg/L
	Pyrene	5.0	µg/L
	Pyridine	10	µg/L
	Ronnel	*	µg/L
Semivolatile organics Acid Extractables SW8270C	2,4,5-Trichlorophenol	5.0	µg/L
	2,4,6-Trichlorophenol	5.0	µg/L
	2,4-Dichlorophenol	5.0	µg/L
	2,4-Dimethylphenol	5.0	µg/L
	2,4-Dinitrophenol	20	µg/L
	2-Chlorophenol	5.0	µg/L
	2-Methylphenol	5.0	µg/L
	2-Nitrophenol	5.0	µg/L
	4,6-Dinitro-2-methylphenol	20	µg/L
	4-Chloro-3-methylphenol	5.0	µg/L
	4-Nitrophenol	20	µg/L
	Pentachlorophenol	20	µg/L
	Phenol	5.0	µg/L
Additional Compound	4-Tert-Butylphenol	*	µg/L
	1,3-Dinitrobenzene	5.0	µg/L
	1,4-Dioxane	10	µg/L
	1-Naphthylamine	50	µg/L
	2,3,4,6-Tetrachlorophenol	5.0	µg/L
	2,6-Dichlorophenol	5.0	µg/L
	2-Naphthylamine	50	µg/L
	2-Picoline	10	µg/L
	3,3'-Dichlorobenzidine	5.0	µg/L
	3,3'-Dimethylbenzidine	50	µg/L

TABLE B-3
Target Analyte List for Aqueous Matrix—All Selected Analytes
*Soil and Sediment Sampling to Support the Dow MOCA ERA
 Sampling and Analysis Plan*

Parameter/Method	Analyte	Water	
		RL	Unit
Semivolatile organics Acid Extractables (Continued)	3-Methylcholanthrene	10	µg/L
	3 & 4-Methylphenol	10	µg/L
	1,4-Naphthoquinone	50	µg/L
	4-Aminobiphenyl	5.0	µg/L
	4-Chloroaniline	20	µg/L
	4-Nitroquinoline 1-oxide	50	µg/L
	5-Nitro-o-toluidine	20	µg/L
	7,12-Dimethylbenz(a)anthracene	10	µg/L
	a,a-Dimethylphenethylamine	50	µg/L
	Acetophenone	5.0	µg/L
	Aniline	20	µg/L
	Aramite	50	µg/L
	Benzyl Alcohol	50	µg/L
	Diphenylamine	10	µg/L
	Ethyl methanesulfonate	10	µg/L
	Hexachlorophene	50	µg/L
	Hexachloropropene	50	µg/L
	Isosafrole	10	µg/L
	Methapyrilene	10	µg/L
	Methyl methansulfonate	10	µg/L
	N-Nitrosodiethylamine	10	µg/L
	N-Nitrosodi-n-butylamine	10	µg/L
	N-Nitrosomethylamine	10	µg/L
	N-Nitrosomorpholine	10	µg/L
	N-Nitrosopiperidene	10	µg/L
	N-Nitrosopyrrolidine	10	µg/L
	o-Toluidine	10	µg/L
Additional Compound	o-Phenyl phenol	*	µg/L
	p-(Dimethylamino)azobenzene	10	µg/L
	Pentachlorobenzene	5.0	µg/L
	Pentachloronitrobenzene	5.0	µg/L
	Phenacetin	20	µg/L
	p-Phenylenediamine	100	µg/L
	Pronamide	10	µg/L
	Safrole	10	µg/L
	Dinoxéb	20	µg/L
	sym-Trinitrobenzene	10	µg/L
Dioxins and Furans SW8290	2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD)	0.01	ng/L
	1,2,3,7,8-Pentachlorodibenzo-p-dioxin (PeCDD)	0.05	ng/L
	1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.05	ng/L
	1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin (HxCDD)	0.05	ng/L
	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin (HxCDD)	0.05	ng/L
	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin (HpCDD)	0.05	ng/L
	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin (OCDD)	0.1	ng/L
	2,3,7,8-Tetrachlorodibenzofuran (TCDF)	0.01	ng/L
	1,2,3,7,8-Pentachlorodibenzofuran (PeCDF)	0.05	ng/L
	2,3,4,7,8-Pentachlorodibenzofuran (PeCDF)	0.05	ng/L
	1,2,3,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.05	ng/L
	1,2,3,7,8,9-Hexachlorodibenzofuran (HxCDF)	0.05	ng/L
	1,2,3,4,7,8-Hexachlorodibenzofuran (HxCDF)	0.05	ng/L
	2,3,4,6,7,8-Hexachlorodibenzofuran (HxCDF)	0.05	ng/L
	1,2,3,4,6,7,8-Heptachlorodibenzofuran (HpCDF)	0.05	ng/L
	1,2,3,4,7,8,9-Heptachlorodibenzofuran (HpCDF)	0.05	ng/L
	1,2,3,4,6,7,8,9-Octachlorodibenzofuran (OCDF)	0.1	ng/L

Additional Compound - The laboratory will purchase a standard for this compound and perform Method Detection Limit (MDL) Studies prior to analysis of the samples.

* - Reporting Limits will be determined upon completion of the MDL Studies.

Appendix C

Site Specific HS&E Plan Amendment

Dow Program

CH2M HILL HEALTH, SAFETY AND ENVIRONMENT PLAN

Site-Specific Amendment No. 2 – Revision 2

This amendment must accompany the Health, Safety and Environment Plan (HS&E Plan) for the **Dow Chemical Company Midland** project approved on **April 1, 2004**. The purpose of the HS&E Plan amendment is to include supplemental information as it becomes available. Supplemental information will be used to specify dates of site work for individual tasks, verify CH2M HILL onsite personnel and responsibilities, list site-specific subcontractors and contractors, and reevaluate hazards associated with the planned activities.

Where the amendment contains information different from the HS&E Plan, the amendment will take precedence for the specified task. The amendment includes new information or revises existing HS&E Plan information. Sections of the HS&E Plan that are not addressed in the amendments do not have changes; therefore, the HS&E Plan will be followed. All employees performing tasks covered by this amendment must read both the HS&E Plan and this amendment and agree to abide by their provisions (see Attachment 1).

Project Information and Description

PROJECT NO:	317710.01.WP (original HS&E Plan 188182 and 188194)
CLIENT:	The Dow Chemical Company
PROJECT/SITE NAME:	Midland
SITE ADDRESS:	This HS&E Plan Amendment is intended to cover activities associated with Offsite Corrective Action fieldwork associated with Dow's Midland Plant, as described under Condition XI.B of Dow's June, 2003 Operating License. Specific areas in which work will occur include: (1) Sediments and floodplain soils of the Tittabawassee River from approximately 1 mile upstream of Dow Midland Plant to approximately 11 miles downstream to the confluence of the Tittabawassee and Saginaw Rivers and also upstream of the Plant along the Chippawa River. Activities covered will consist of investigation, Interim Response Activities, and corrective actions.
CH2M HILL PROJECT MANAGER:	Gary Dyke
CH2M HILL OFFICE:	Midland
DATE HS&E PLAN PREPARED:	04/01/2004
DATE AMENDMENT PREPARED:	May 26, 2004; Revised June 9, 2004
DATE(S) OF SITE WORK:	June 28 – July 2, 2004 (Boating and sediment sampling)

1.1 Description of Tasks

(Reference Field Project Start-up Form)

Description of Tasks for this Site-Specific Amendment:

SEDIMENT SAMPLING. Collect surface sediment samples from 5 locations along the Tittabawassee River , and one location on the Chippawa River by boat (work will be contracted out). Conditions may exist requiring the samplers to leave the boat during the sampling activities to wade through portions of the river.

1.1.1 Hazwoper-Regulated Tasks

- Sediment Sample Collection by boat
- Sediment Sample Collection by wading

1.1.2 Non-Hazwoper-Regulated Tasks

TASKS	CONTROLS
<ul style="list-style-type: none">• GPS Surveying	<ul style="list-style-type: none">• Brief on hazards, limits of access, and emergency procedures• Post contaminant areas as appropriate (refer to Section 8.2 for details)• Sample and monitor as appropriate (refer to Section 5.0)

2 Control Measures

This section provides safe work practices and control measures used to reduce or eliminate potential hazards and risks.

Each individual must complete a safety task analysis card or STAC (see Attachment 4 of the original HS&E Plan). STACs must be completed daily and updated as site conditions and/or activities change, or potential changes arise.

A Project-Activity Self-Assessment Checklist for “Boating” is contained in Attachment 4 of this amendment. The checklist will be completed at the beginning of boating activities, and once weekly. The self-assessment checklists, including documented corrective actions, should be made part of the permanent project records, and be promptly submitted to the HSM.

Formal observations are not required for the tasks under this amendment since there are fewer than three employees working less than five days onsite for each task; however observations may be done at any time. Interventions are required. Interventions will occur when an unsafe behavior or work condition is observed. Each person conducting 40 or more hours per month of field work must document interventions on the STAC or intervention card at a rate of one per 40 hours worked.

Additionally, as indicated in Section 2.1.1, a Safe Work Permit for “Boating” will be completed on a daily basis for this activity. A Safe Work Permit for “Pressure Washing” will be completed as necessary for decontaminating equipment.

Safe Work Permits are incorporated as Attachment 2 of this HS&E Plan Amendment. Completed Safe Work Permits must be submitted to Jeannie Armstrong/SEA for internal and Dow review.

2.1 Project-Specific Control Measures

2.1.1 Boating

The following control measures are excerpted from Section 2.1.2 of the original HS&E Plan, and apply to subcontractor personnel performing boating and sediment sampling. Additionally, a Safe Work Permit for Boating will be completed on a daily basis, and a Safe Work Permit for Pressure Washing will be completed as necessary for decontaminating equipment (both included in Attachment 2 of this HS&E Plan Amendment). A Job Hazard Analysis (JHA) for sediment sampling activities has been prepared by the subcontractor and is incorporated as Attachment 3 of this HS&E Plan Amendment.

- All operations involving boating will be directed by an experienced boater.
- The Safe Boating Checklist found in Attachment 4 of this amendment will be completed at the beginning of boating activities, and once weekly.
- Michigan boating laws must be adhered to when operating a boat during visual surveying activities. Refer to "The Handbook of Michigan Boating Laws and Responsibilities," which is available online at <http://boat-ed.com/mi/handbook/pdf/miguide.pdf>.
- All staff must wear U.S. Coast Guard (USCG) approved personnel flotation devices (PFDs) when aboard the boat.
- One Type IV USCG-approved PFD (throwable cushions or ring buoys) must be onboard and readily accessible on vessels 16 feet or longer.
- The boating team will include at least one person qualified in First Aid and CPR.
- All personnel shall wear bright colors (for example: hunter orange, yellow, etc.) to enhance their visibility to one another.
- The SC has final authority on operations with regards to weather and water conditions.
- Safe means of boarding or leaving the boat or platform must be provided to prevent slipping and falling.
- Employees should be instructed on safe use of the boat.
- Never exceed the load limit of the boat.
- The boat must be equipped with a Type B fire extinguisher if the boat has permanently installed fuel tanks, portable fuel tanks, or compartments in which flammable or combustible materials are stored. The extinguisher must be mounted in an accessible area, and labeled "Marine Type USCG Approved," followed by the size and type symbols and the approval number. Refer to "The Handbook of Michigan Boating Laws and Responsibilities" for additional fire extinguisher requirements.
- The boat must be equipped with the appropriate navigation lights for the type of boat being used for nighttime and poor visibility conditions (refer to "The Handbook of Michigan Boating Laws and Responsibilities").
- The boat must be equipped with the appropriate sound producing devices for the type of boat being used (refer to "The Handbook of Michigan Boating Laws and Responsibilities").
- The boat must be equipped with an anchor and alternative means of locomotion (extra motor, floatable oars).
- Weather and water conditions must be monitored to determine if it is safe to be out on a water body.
- Work requiring the use of a boat will not take place at night or during inclement weather.
- Shut off engine before refueling. Do not smoke while refueling.
- Remain seated in the boat or canoe whenever possible.
- Never stand on the gunwales of a boat except when needed for embarking or disembarking.

2.1.2 Wading

The following physical hazards may exist on this project including hazards associated with wading in 3 to 4 feet of water, and working from a boat or canoe.

- Although the river and lake areas we will be working in are wadeable in places, there may be deep spots. Care will be taken when wading not to proceed beyond waist deep.
- Wading will not be performed without a buddy nearby.
- U.S. Coast Guard-approved PFD, or life jacket, shall be worn by both the person wading and the buddy.
- Inspect PFDs prior to use. Do not use defective PFDs.
- A minimum of one ring buoy with 90 feet of 3/8-inch solid-braid polypropylene (or equal) rope must be provided for emergency rescue.

- Waders will not be worn when personnel are in the boat.
- The sediments may be soft and there is a possibility of sinking. When wading, team members are cautioned to be careful of footing.

3 Project Organization and Personnel

3.1 CH2M HILL Employee Medical Surveillance and Training

(Reference CH2M HILL SOPs HSE-01, *Medical Surveillance*, and HSE-02, *Health and Safety Training*)

Employee Name	Office	Responsibility	SC/FA-CPR
Paul Arps	MOCA Site	Field Team lead	Level C SSC; FA/CPR
Gary Dyke	MOCA Site	Project Manager Leader	
Eric Kroger	DAY	Project Manager	

3.2 Field Team Chain of Command and Communication Procedures

3.2.1 Client

Contact Name: Dow Chemical Company

Facility Contact Name: Ben Baker

Phone: 989/636-0787

The contact at security to notify for work along the river on Dow property is Jack Johnson (989) 638-1429.

3.2.2 CH2M HILL

Project Manager Leader: Gary Dyke/LSG/MOCA Site

Project Manager: Eric Kroger/DAY

Health and Safety Manager: Lisa Martin/DEN

Environmental Compliance Coordinator: Jessica Raphael/DET

Field Team Leader: Paul Arps/LSG/MOCA Site

Safety Coordinator: Paul Arps/LSG

The SC is responsible for contacting the Field Team Leader and Project Manager. In general, the Project Manager will contact the client. The Health and Safety Manager should be contacted as appropriate.

3.2.3 CH2M HILL Subcontractors

(Reference CH2M HILL SOP HSE-55, *Subcontractor, Contractor, and Owner*)

Subcontractor: Limno-Tech, Inc.

Subcontractor Contact Name: Tim Dekkar

Telephone: (734) 332-1200

Subcontractor Tasks(s): Perform surface sediment sample collection.

4 Personal Protective Equipment (PPE)

(Reference CH2M HILL SOP HSE-07, *Personal Protective Equipment*; HSE-08, *Respiratory Protection*)

PPE Specifications ^a

Task	Level	Body	Head	Respirator ^b
GPS Surveying	D	Work clothes; steel-toe, leather work boots; work gloves.	Hardhat ^c Safety glasses Ear protection ^d	None required
Sediment sample collection by boat	Modified D	Coveralls: Not required unless work clothes can't be kept reasonably clean, at which time cotton coveralls will be worn Boots: Steel-toe, leather work boots; for muddy/wet conditions - steel-toe, chemical-resistant boots Gloves: Nitrile gloves. Personal Flotation Devices (PFDs) must be worn on the boat.	Hardhat ^c Safety glasses Ear protection ^d	None required.
Sediment sample collection by wading	Modified D	Coveralls: Not required unless work clothes can't be kept reasonably clean, at which time cotton coveralls will be worn Waders: To be worn only while wading - not while in boat Gloves: Nitrile gloves. Personal Flotation Devices (PFDs) must be worn on the boat.	Hardhat ^c Safety glasses Ear protection ^d	None required.

Reasons for Upgrading or Downgrading Level of Protection

Upgrade ^f	Downgrade
<ul style="list-style-type: none">Request from individual performing tasks.Change in work tasks that will increase contact or potential contact with hazardous materials.Occurrence or likely occurrence of gas or vapor emission.Known or suspected presence of dermal hazards.Instrument action levels (Section 5) exceeded.	<ul style="list-style-type: none">New information indicating that situation is less hazardous than originally thought.Change in site conditions that decreases the hazard.Change in work task that will reduce contact with hazardous materials.

^a Modifications are as indicated. CH2M HILL will provide PPE only to CH2M HILL employees.

^b No facial hair that would interfere with respirator fit is permitted.

^c Hardhat and splash-shield areas are to be determined by the SC.

^d Ear protection should be worn when conversations cannot be held at distances of 3 feet or less without shouting.

^e Cartridge change-out schedule is at least every 8 hours (or one work day), except if relative humidity is > 85%, or if organic vapor measurements are > midpoint of Level C range (refer to Section 5)-, then at least every 4 hours. If encountered conditions are different than those anticipated in this HSP, contact the HSM.

^f Performing a task that requires an upgrade to a higher level of protection (e.g., Level D to Level C) is permitted only when the PPE requirements have been approved by the HSM, and an SC qualified at that level is present.

5 Air Monitoring/Sampling

(Reference CH2M HILL SOP HSE-06, *Air Monitoring*)

None Required

11 Approval

This site-specific Health, Safety and Environment Plan has been written for use by CH2M HILL only. CH2M HILL claims no responsibility for its use by others unless that use has been specified and defined in project or contract documents. The plan is written for the specific site conditions, purposes, dates, and personnel specified and must be amended if those conditions change.

11.1 Original Plan

Written By: Catherine Geiger/CHI

Date: 11/24/2003

Approved By:

Date: 04/01/2004

Lisa Martin _____
RHSPM

Jessica Raphael _____
ECC

11.2 Revisions

Revisions Made By: Eric Kroger/DAY Date: May 26, 2004

Revisions to Plan: Amended plan to cover June 2004 geoprobe boring and soil sampling and boating and sediment sampling activities, and updated the associated hazards and controls, project personnel, subcontractors, PPE, and air monitoring requirements for these tasks.

Revisions Approved By:

Date: May 28, 2004

Lisa Martin _____
RHSPM

Jessica Raphael _____
ECC

11.3 Revisions

Revisions Made By: Paul Arps/LSG Date: June 2, 2004

Revisions to Plan: Revised Amendment No. 2 to include raking/clearing activities and chainsaw operations. Updated the associated hazards and controls and PPE requirements for these tasks. Added the JHA template as Attachment 3, and the Project-Activity Self-Assessment Checklist for Chainsaw Operations as Attachment 4.

Revisions Approved By:

Date: June 2, 2004

Lisa Martin _____
RHSPM

Jessica Raphael _____
ECC

11.4 Revisions

Revisions Made By: Paul Arps/LSG Date: June 9, 2004

Revisions to Plan: Revised Amendment No. 2 to cover sediment sampling activities from a boat and while wading. Updated the associated hazards and controls and PPE requirements for these tasks. Added the Limno-Tech, Inc. JHA for sediment sampling as Attachment 3.

Revisions Approved By:

Date: June 25, 2004

Lisa Martin _____
RHSPM

Jessica Raphael _____
ECC

12 Attachments

Attachment 1: Employee Signoff Form - Health & Safety Plan

Attachment 2: Safe Work Permits - Boating and Pressure Washing

Attachment 3: Limno-Tech, Inc. Job Hazard Analysis for Sediment Sampling

Attachment 4: HS&E Self-Assessment Checklist - Boating

Attachment 1

Employee Signoff Form – Health & Safety Plan

EMPLOYEE SIGNOFF FORM

Health and Safety Plan

Amendment No. 2 – Revision 2

The CH2M HILL project employees and subcontractors listed below have been provided with a copy of this HSP, have read and understood it, and agree to abide by its provisions.

Project Name: Dow, Midland, Michigan

Project Number: 317710.01.WP

Attachment 2

Safe Work Permits – Boating and Pressure Washing

Attachment 3

Limno-Tech, Inc. Job Hazard Analysis for Sediment Sampling

Attachment 4
HS&E Self-Assessment Checklist – Boating

Health and Safety Self Assessment Checklist - BOATING

This self assessment is only to be used at locations where CH2M HILL controls the work. It is not to be used at locations where others control the work.

Project Name: _____ Project No.: _____

Location: _____ PM: _____

Auditor: _____ Title: _____ Date: _____

If an assessment item is complete/correct the "Yes" box should be checked. If an item is incomplete or deficient the "No" box should be checked. Items that are considered to be imminently dangerous must be corrected immediately or all exposed personnel must be removed from the hazard. All deficiencies shall be brought to the attention of the appropriate party that is responsible for correcting the deficiency. If an item is not applicable, the "N/A" box should be checked. If an item is applicable but was not observed during the assessment, the "N/O" box should be checked.

	Yes	No	NA	N/O
GENERAL				
Weather forecast checked.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
At Least one Team Member is trained in First Aid/CPR.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Lights, horn, battery, fuel, steering, bilge pump, anchor & propeller checked.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Daily safety briefing/ meeting conducted with crew	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Personal Floatation Devices (PFD's) inspected daily.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Fire extinguisher available, charged and accessible.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
First aid kit available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project Instructions and H&S Plan available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Potable water available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sunscreen & Bug Spray available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Distress communications available (flare gun, air horn, Cell phone, CB)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
An oar is available on board the boat in the event of mechanical failure	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BOAT TRANSPORT				
13. Boat motor secured prior to boat transport	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14. Turn signals and brake lights verified as operable.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
15. Safety chains available on trailer and secured in a criss-cross fashion	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
16. Trailer winch engaged	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
17. Ball hitch seated and latch pin installed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
18 Tools and equipment secured prior to boat movement	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
19 Personnel not allowed ride on boat as it is being towed	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
20. Safe distance is maintained with traveling around power lines	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
21. Backup alarm or spotter used when backing boat	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
22. Boat is unhitched on a level and stable surface	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
BOAT OPERATION				
23. Boat holds appropriate size load	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
24. Personnel cleared during boat start-up	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kill switch clearly identified and operational	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
26. Personnel wearing appropriate PPE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
27. All personnel wearing PFD's	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
28. Boat will not be used for recreational purposes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>